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TO PLAY WITH JOURNEY?

UP TO NOW, YOU'VE HAD IT EASY.

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VIDEO GAMES

Volume 1, Number 6 March 1983

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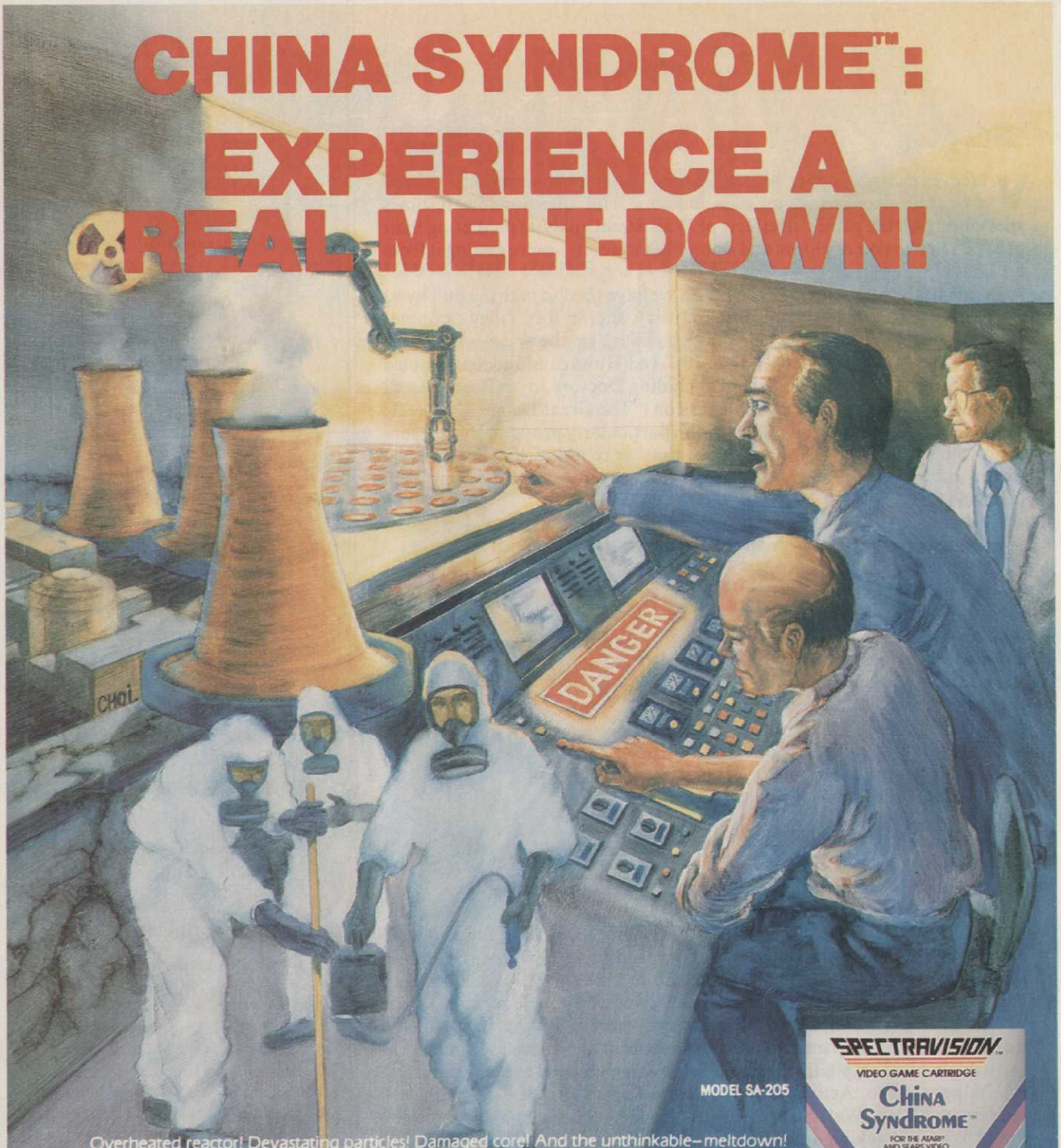
CHINA SYNDROME™: EXPERIENCE A REAL MELT-DOWN!



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HYPERSPACE

Video games are under attack. Either it's angry community groups attempting to banish arcades, doctors with questionable resumes speculating on the games' ill effects or Wall Street analysts predicting their usual Easter basket of gloom and doom. Let's face it—we're getting it from all sides.

In this sixth issue of *VIDEO GAMES* we have tried to take the bull by its horns and discuss matters sensibly. Industry veteran Ray Tilley examines some of the techniques now being used to polish up the arcades on a very local level in "Intruder Alert!" (page 26). And Howard Mandel assembled an authoritative panel of observers, including Doctors Joyce Brothers and Philip Zimbardo, for a round table session ("The Great Debate," page 21) that does anything but pull punches. I'm particularly proud of this presentation since it proves beyond a doubt that we're not afraid to provide a forum for opinions we may not share. Expect to see more of the same from us in the future.

And expect to see more editorializing in this column. As video games receive increasing coverage in the press, there is a greater need for perspective. I am specifically referring to the recent spate of articles which followed Warner Communications' announcement that fourth-quarter earnings for '82 would be less than anticipated. In other words, for the first time in three years Atari wouldn't be carrying Warner on the ledger sheets. The consequences for the industry as a whole, in my opinion, were blown totally out of proportion.

To understand this whole mess, you have to know something about how Wall Street works, which admittedly I know little about. The little I do know, however, is that analysts have been predicting a so-called "shakeout" in the business for about a year. What happens if a shakeout doesn't take place? The analysts will look pretty darn foolish, to say the least. So Atari makes its announcement, coupled with news of an executive shake-up and an impending legal war with Coleco, and suddenly video game properties begin to take a dive. Worse, Imagic, forced to run scared, postpones its much-awaited public offering.

The honest truth of the whole matter is Atari is still making gains—however modest they may be in comparison to the company's meteoric growth—while competition, at least in the consumer end of the business, is blooming. Coleco, Activision, Imagic and Parker Brothers all had great success in '82, yet Wall Street is upset. Reportedly, the analysts are sore about Warner backing down from its predictions. If the analysts had only stopped to look at the realities of the situation—everyone knows Atari's coin-op division is slumping, the computer division is still waiting to turn a profit, and adventure games like Raiders of the Lost Ark and E.T., despite their famous names, will never sell like a Pac-Man or Space Invaders—Warner's announcement would not have come as such a terrific surprise.

But Wall Street has a prophesy to fulfill—the collapse of the video game business. They're working on it, they're working on it. . . .

* * *

More on VG #6: Back to the fun—that is, the games. John Holmstrom reports on his visit to Chicago for the annual trade show in Coin-op Shop, Roger Dionne takes a look at the world's cheapest TV-game system in Hard Sell, Phil Wiswell offers some needed game tips in Soft Spot, Mike Blanchet takes you on a winner's tour of the latest coin-ops in "Beating the Top 15 Arcade Games," and Perry Greenberg rates a dozen joysticks starting on page 58. By all means, enjoy!

SB

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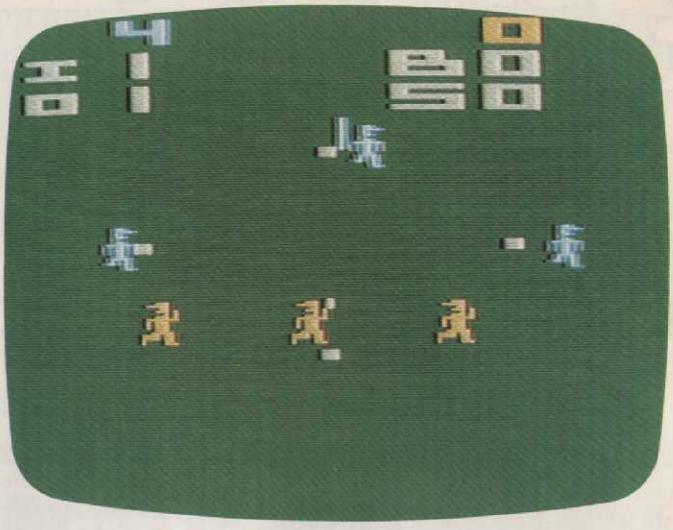
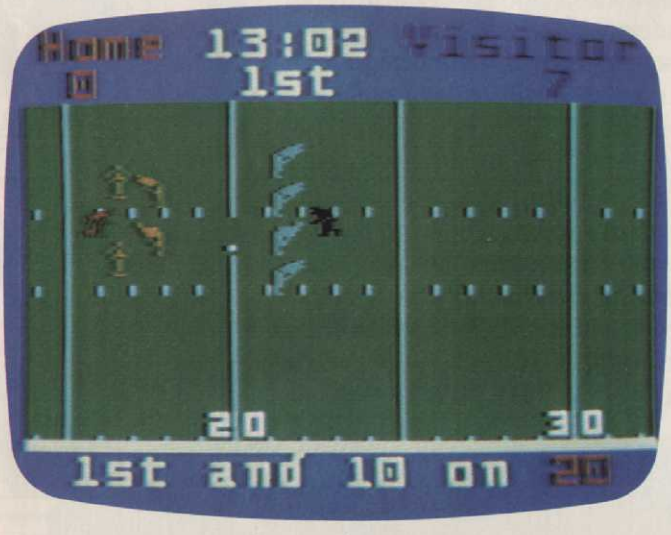


2% Preferred Atari.®

APPARENTLY, GEORGE PLIMPTON ISN'T THE ONLY ONE WHO CAN SEE THE DIFFERENCE.



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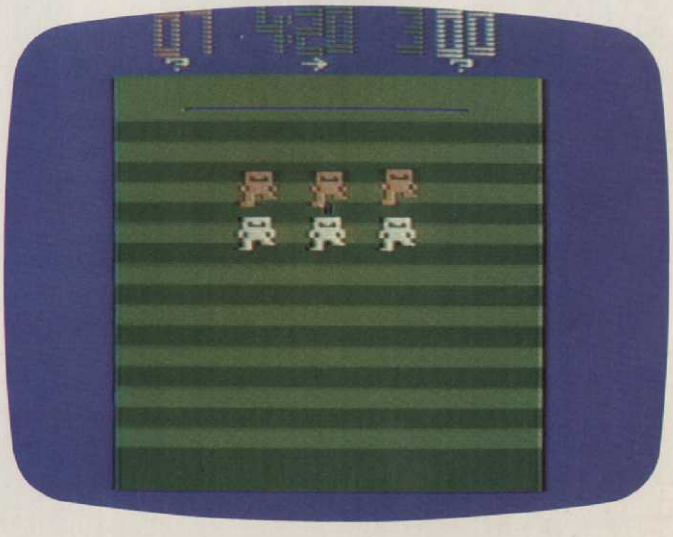

2% Preferred Atari.

Mr. Plimpton, bless him, has been quick to point out to TV viewers just how wonderful Intellivision® graphics and gameplay are.

But who better than baseball and football fans to compare Atari® sports games with ours?

As you can see from the independent research figures shown,** baseball and football fans were well and truly on our side.

It just goes to prove what we've said all along.

Intellivision NFL* Football and Major League* Baseball are the closest thing to the real thing.

While we're on the subject of the real thing, we'd like to tell you about an exciting new addition that will make playing your Intellivision even more lifelike:

Lifelike voices. Provided by the new IntelliVoice™ module.

IntelliVoice, sold separately, adds a whole new dimension of reality to our games and will be available later in the year.

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Already we offer a better designed system with greater attention to detail.

Our lifelike players make our sports games more realistic than Atari.

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All this attention to detail makes all the difference in the world to people who already own Intellivision.

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INTELLIVISION®

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Double Speak

ColecoVision Views

I would like to make some comments about Michael Blanchet's article on ColecoVision (Hard Sell, January issue). In it he states that Expansion Modules #1 and 2 sell for $90 each. Well, I just bought Module #2 for $65. This price isn't even that much if you consider that it comes with a cartridge and that it improves any racing game, such as Turbo, to an amazing extent. And, yes, Coleco will be marketing more cartridges for use with Module #2. The first of these will be Exidy's Destruction Derby.

Noam Bramson
New Rochelle, N.Y.

I am a happy owner of ColecoVision. I noticed one thing that was overlooked in your ColecoVision review. Mike Blanchet noted that Atari joysticks and paddles can be used with Expansion Module #1. What he failed to note is that the Atari joystick can be plugged into the ColecoVision master component itself! The stick can be used in all games that use one action button. Please note this in your next issue. I'm sure it will relieve many sore thumbs.

Tim McMahon
Riverdale, Ill.

Thanks for the info, guys. Guess what? There are about a dozen other sticks that plug into ColecoVision. See "Rating the Joysticks," by Perry Greenberg on page 58.—Ed.

Back to Basics

I got the fourth issue of *VIDEO GAMES*, but could not find your third issue. Do you sell back issues?

Larry McKinney
Adamstown, Pa.

Yes, sir. Send $4.00 for our premiere issue and $3.00 for the others to our address and any back issue can be yours.—Ed.

One Mo' Club

If you plan to run an update of the article, "Are You Game Enough to Join a Club?" (Blips, December issue), please include "Clubhouse," a bimonthly newsletter some friends and I have begun. By joining the United Videogame Association, you receive the newsletter plus extras for one year. To join, send a $5 check or money order to me at 104 Millstone Circle, Courtland, Va. 23837.

George Perry
Editor

Yes, "Clubhouse" is for real. The newsletter we received is five xeroxed pages long and features an interview with none other than Eugene Jarvis. But we're still wondering about those "extras."—Ed.

Handyman

I'm good with electronics and enjoy building my own controllers for the Atari VCS. Can you tell me a good small-quantity source for arcade-style buttons?

Bryan Small
Oswego, N.Y.

Contact either Switchcraft at 5555 N. Elston Ave., Chicago, Ill. 60630, or Grayhill at 561 Hill Grove Ave., La Grange, Ill. 60525 to see if either has a distributor in your area. Perhaps other hobbyists out there have some other sources. Let us know.—Ed.

Cable and Willing

I saw a TV commercial advertising PlayCable for the Intellivision system, but it still left me with some questions. Who makes it? Where can it be bought? How much does it cost? Does it carry games made by Imagic, Coleco and Activision as well as games by Mattel?

Dave Playford
Brockville, Ont.

Dave Smith's article, "Playing Games With Cable," in our February issue should have answered all of your questions. No, PlayCable does not carry Imagic, Coleco or Activision games. —Ed.

Southern Discomfort

I have a complaint about something I read in your January issue. Speaking as an Alabamian with a good deal of Southern pride, I'd like to say that anyone who's smart enough to stick a quarter in a machine should know that North Carolina is NOT the Cotton State (SCORE! column). The Cotton State is none other than Alabama. North Carolina, incidentally, is the Tarheel State. I enjoy your magazine very much and am only trying to set things straight.

Jeff Lisenby
Prattville, Ala.

Our apologies to natives of Alabama and North Carolina for this misnomer.—Ed.

Module Operandi

Is there any truth to the rumor that Atari is taking legal action against Coleco to prevent the production of the Expansion Module #1?

Vaughn Greenlees
Denver, Col.

Matter of fact there is. Atari is claiming that the module that allows you to use Atari-compatible carts is an in-

(Continued on page 76)

ATARI IS POLE POSITION™ YOU CAN FEEL.

NEW FROM ATARI COIN VIDEO GAMES.

ATARI RACING

Awesome speed. Awesome realism you can *hear* and *feel*. New Atari Pole Position puts you *in* the action like no other coin video game you've ever played. . . In the cockpit of a screaming Formula 1 racing machine at the famous Fuji Speedway. You've finished the Qualifying Lap. Fast enough for the pole position starting slot in the Gran Prix. Starting lights blink to green. You touch the throttle. Your breath catches as your car lunges off the grid. You're racing other cars and the clock flat out to master the challenge of this incredibly real driving experience. Join the Atari Racing team. Pole Position is racing competition to the max. Play it. Upright or Sitdown. Ask for it where you play coin video games today. Everything else is too slow.

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BLIPS

Games by Apollo Tumbles Back to Earth

In Wabbit, the latest release of Games by Apollo, a desperate farmer goes to great lengths to protect his carrot crop from an army of hungry rabbits. Only by scaring off the critters can he save his crop from total destruction.

Little did Wabbit's designer know how prescient his game would be. Last November, Apollo filed a petition for reorganization under Chapter 11 of the Federal Bankruptcy Code. The company will now have to fend off quite a few creditors as it tries to save its cartridges from extinction.

Apollo fans will still be able to buy the company's cartridges—for awhile at least—because existing retail orders are being filled. But the supply won't last forever. Until the firm shows signs of recovery, says Lois Levin, a spokesperson for Apollo, no new production, advertising or distribution will be undertaken.

In the meantime, a court-appointed trustee will handle the company's finances and arrange for the repayment of creditors while a search for new financial support is conducted. So far no new backers have been found.

What happened to Apollo? Some observers and industry insiders blame Apollo management for some key errors. As one insider put it, Pat Roper, Apollo's president and founder, "went a little too far too fast." It was only about a year ago that Apollo expanded its office and plant. And last July, after announcing revenues of $7 million during the company's first nine months of existence, Roper bullishly predicted that sales for 1982 would reach $30 million. But the outlook quickly went sour.

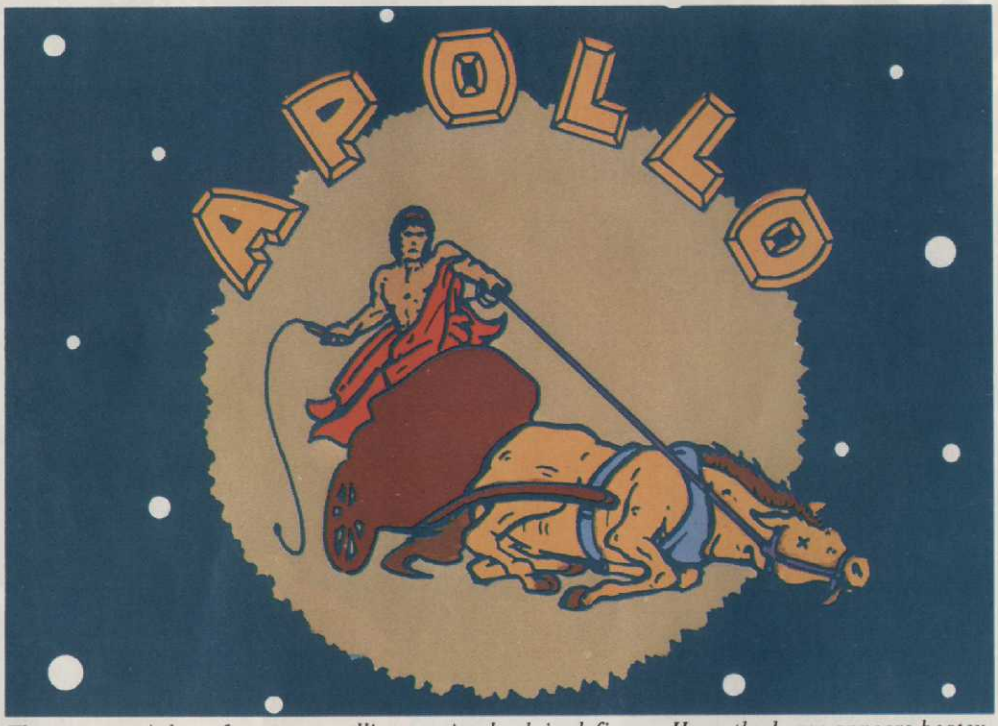


Illustration by Brad Hamann

The company's logo features a stallion rearing back in defiance. Here, the horse appears beaten down, though it is not necessarily out of the race.

In October, the Dallas-based company began laying off its nearly 300 employees as debts kept piling up. Apollo, founded in October 1981, had been continually draining capital from its parent company, National Career Consultants, an 11-year-old audiovisual firm.

"Now both units are on rather shaky ground because of Apollo's high production and marketing costs," says Levin.

But others associated with the video game industry say Apollo's woes are only the symptoms of larger problems—market saturation, high production costs, and severe competition—that are likely to sink other companies along the way.

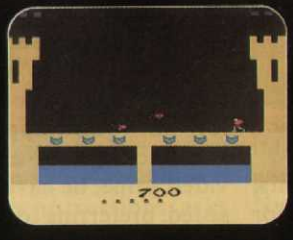
"The cost of getting into this business is basically low," says Frank Mainero, vice-president of marketing at Activision. "But the cost of competing is high." More than 400 games are currently on store shelves.

Another vice-president, who requested anonymity, believes poor distribution is at the core of Apollo's crisis. "It was distribution for sure," the executive says. "Everyone's out there fighting for shelf space, and subsequently, for survival." A tiny company like Apollo, whose management has no experience in consumer products, faces an uphill struggle against old-line established companies like Parker Brothers and Coleco, which have powerful distribution channels through toy stores, mass merchandisers, and specialty outlets.

Besides Roper, who was not available for comment, only Bill Yankie, vice-president and general manager, remains of Apollo's brass. The new games for release include Infiltrate, Guardian, Kyphus, and that silly, prophetic cartridge, Wabbit.

—Suzan Prince

DAN SONNET THOUGHT HE COULD TAKE THE HEAT.



What's the matter, Dan? Having a little trouble keeping up with Imagic's® new game Dragonfire™?

But we thought you were so tough, so cool.

We never thought an expert like you would have so much trouble sneaking over the drawbridge to the castle.

Just look at you jumping and ducking and dodging that Dragonfire. Why, if we didn't know better, we'd say you were scared out of your pantaloons.

Well, surprise, surprise. You made it inside the castle. Let's see how fast you can swipe that treasure before you get hit by the dragon's fireballs.

Ouch!!! Ooooch!! Aghhh!!

Shame on you! At this rate, Dan, you're not even going to make it past the first level.

You should know by now that Dragonfire and all Imagic games are created by experts for experts.

And frankly, Danny boy, you just don't qualify.

IMAGIC

Created by experts for experts.™

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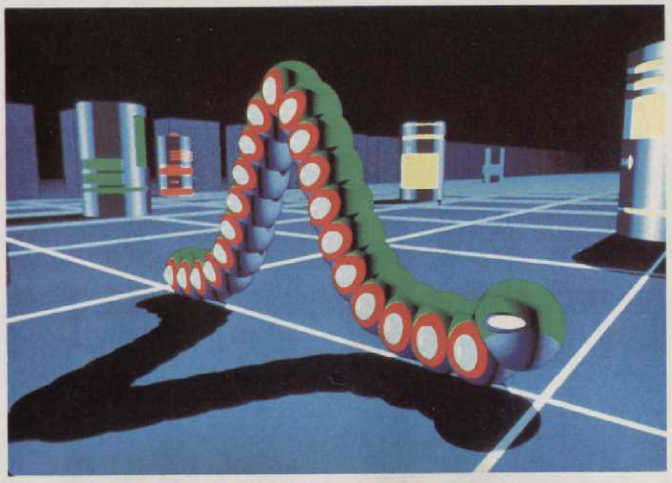
For Atari® 2600™ and Intellivision® Systems

Worm Wars I Ad Has That MAGI Touch

The problem: how to make the TV ad campaign for the new game, Worm Wars I, really stand out. Frank J. O'Connell, president of Fox Video Games, wanted something different. The producers at BBD&O, the ad firm hired by Fox, wanted something "*Tron*esque." So, about a week after *Tron* was released, BBD&O contacted Richard Taylor, the man who led the special effects team for the film and who is the senior creative director at Mathematical Applications Group, Inc. (MAGI).

"They had the lyrics to the song which I thought was a great little piece of music," Taylor recalls. "It was really new wave, had a beat to it, and everything. I designed the cuts and the action to the music, storyboarded the thing up, and went back to them in two weeks. They approved it immediately."

Taylor designed the commercial at the MAGI/Synthevision (a MAGI subsidiary) facilities in Santa Monica, Calif. with some help from his colleagues back east at MAGI's Elmsford, N.Y. offices. The actual computing was done "bi-coastally" between both sites. "As you know, Worm Wars is played on an Atari system—it's a two-dimensional game and not very exciting, really," Taylor says. "So I came up with the concept of cutting between a three-dimensional reality that was a fantasy version of the game as it's played." The final result, 95 percent computer-generated, is a stunning high-resolution 30-second spot that rivals some of the scenes in *Tron*.



These scenes from the spot are reminiscent of Tron. *Says Taylor: "It's a fantasy version of the game."*

MAGI is working on other video game-related accounts, including a commercial for an upcoming Mountain Dew soda contest in which a ColecoVision, tabletop Coleco games, cartridges, and a Pengo arcade game will be given away.

"In this commercial," Taylor explains, "a kid comes into a general store and puts a quarter into the Mountain Dew machine. The machine turns into a spacecraft around him and takes him off to an electronic game fantasy world that is a computer-simulated reality. Part of the game is shooting down bottlecaps and winning these prizes. In the end, the spaceship flies back into this general store and de-rezzes. The kid falls onto the floor by a display for the game. It's an interpretation of an electronic game world, but it's also a way to get across the information about the prizes."

Another MAGI project is the ad for a 3-D, binocular-type stand-alone game by Tomy. This 30-second journey begins with the game floating out of a grid, setting up the viewer for a tour through the eyepieces and into the three games as they actually appear. Incidentally, MAGI created the visuals for the Zaxxon ad, the first coin-op video TV commercial ever made. Though Taylor has been approached about designing an actual video game, he has so far resisted, preferring to maintain the company's emphasis on feature film production. "We may get involved in electronic games someday," he says. "But at this point we just want to be good filmmakers."

—*Sue Adamo*

Edu-Games: See the Cookie Monster Run

What's the matter with kids today? They're playing too many video games, of course.

But several companies who know a thing or two about kids today aren't about to ignore the potential of the games. In an all-out effort to make education fun, they are designing learning exercises and dressing them up in game-playing clothes.

Inspired by the success of the computer games developed for its two Sesame Place Play Parks, Children's Television Workshop recently created Children's Computer Workshop (CCW). Working with Atari, CCW's first edu-games, including Oscar's Trash Race, Cookie Monster Munch, Alpha Beam, Grover's Music Maker and Big Bird's Egg Catch, will be available in May. Paul B. Firstenberg, CCW president, says these games will be "discovery-oriented, non-violent, and will blend entertainment and learning opportunities. Our overall goal is to encourage broad use of a child's intelligence."

Mike Moone, president of Atari's Consumer Electronics division, is particularly excited about the project. "We'll open up a whole area of children's software which I think will be a rocket ship," he predicts. "I'd double anybody's wildest guess and say that will probably be the size of the industry."

Atari plans to release a minimum of 10 CCW games

this year, says Moone. Half are being geared to three-to-six year olds and the other half to seven-to-10 year olds. Four games are designed for the VCS while six are being prepared for the new 5200 system.

If you'd rather not wait till May, check into three edu-games North American Philips recently introduced for its Odyssey Voice Series. In Nimble Numbers Ned, developed in conjunction with the College of Education at the University of Tennessee, a correct solution to a math problem sets off a barrel-jumping game. The Voice talks the player through each step, gives instructions, asks for responses, repeats the problem, and offers congratulations. Sid the Spellbinder combines an electronic spelling bee and a Centipede-type shoot-'em-up. Type & Tell is used for spelling practice, learning sentence structure, and vocabulary drills.

Illustration by Dana Ventura

Milliken Publishing, the leading publisher of computer software for schools, began a consumer product line, EduFun!, last spring. With two games included on each cassette or diskette, the line kicked off with 12 MathFun! programs, including Alien-counter, a science fiction counting game; Face Flash, a visual memory and counting game (both for five-to-12 year olds); and Frenzy, in which you can save fish from a hungry alligator through quick subtraction and division.

This spring, EduFun! will introduce four WordFun! games, including: Snake-O-Nyms, an antonym/synonym game; Sky Writer, in which a player manipulates a biplane through clouds in search of compound words; and Word Flip, a Concentration-type game in which players build words by looking for their stems and roots behind tiles. At the moment, these games are available only for the Apple and Atari computers. Vic-20 and Texas Instrument 99/4A versions are next on Milliken's agenda. (For more info write: Milliken Publishing, EduFun! Division, 1100 Research Blvd., St. Louis, Mo. 63132.)

The Learning Company (TLC) has six kid-videos for Apple owners as well. There's Gertrude's Puzzles, featuring a go-getter goose who begins each screen by flying off and returning with a set of shapes which you form into geometric patterns; Gertrude's Secrets, in which puzzles are solved by arranging game pieces; Rocky's Roots, in which the object is to build a point-scoring logic machine while learning about basic computer circuitry; and Bumble Games, a set of six colorful number exercises starring Bumble, a creature from the planet Furrin.

"The playful nature of the software," explains TLC president Jack Smyth, "maintains the interest of the child while providing a stimulating and useful learning experience." (For more info write: TLC, 4370 Alpine Rd., Portola Valley, Calif. 94025.)

Kids have a say in developing these edu-games. CCW, TLC and Milliken child test their products in schools across the country. TLC pays special attention to 11-year-old Corrine Grimm's suggestions. She's the youngest member of their graphic artists pool.

—Lois Cantwell

No, But Seriously . . .

Are video games serious business?

Apparently the computer science department of Columbia University in New York believes they are, as it sponsored a day-long video game seminar with Atari Research on Dec. 3.

About 300 people—gung-ho computer science students, avid game players, industry representatives, and the press—gathered at Columbia's Morningside Heights campus to hear Steve Mayer, Atari's vice-president of research and development; Chris Crawford, manager of Atari's game research group; creative consultant Chris Cerf; and Warren Robinett, co-founder of The Learning Company.

Much of the seminar focused on the state of the art.

Photo by Don Hamerman

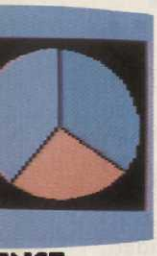
Chris Crawford

Mayer revealed Atari was considering cable-TV as a future vehicle for video games; Robinett said that the subject of digital logic, once taught only at the university level, can now be learned through games at a much younger age; Crawford predicted that computer games would develop into a "fantastic art form, but not overnight"; and Cerf said he was excited about the prospects of media people, musicians, and writers joining together as they gradually discover the compatibility of computer games and traditional forms of communication. *—Anne Krueger*

UpdateUpdateUpdateUpd:

Firebug, the Apple II game that some fire officials were afraid would encourage arson (Jan. '83 *VIDEO GAMES*), has metamorphosed into Firefly. The graphics remain the same, but the game description now challenges players to move a firefly through an electric trap before its trailing light catches up to it. The fly can score points by short-circuiting the trap with water droplets it picks up and releases along the way. Muse, the game's manufacturer, revised Firebug after it learned the game had offended some people. . .In the beginning there was Jungle King, which begat Jungle Hunt (Feb. issue). Recently, Taito America released Pirate Pete, a swashbuckling version of the former games. Taito's Keith Egging says a market research firm informed the company that some players might not be so enchanted with a jungle theme, hence the pirate scenario. *—Michael Fine*

IF YOU OWN A COMMODORE VIC YOU KNOW IT CAN DO ALL THIS.



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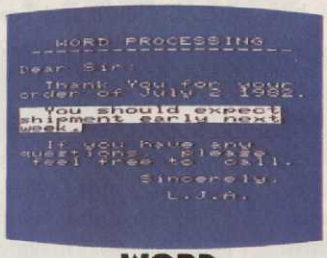
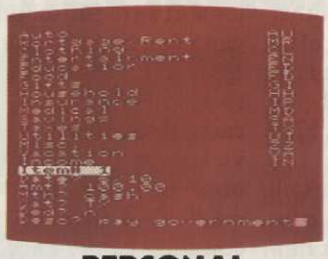
BASIC PROGRAMMING



WORD PROCESSING



PERSONAL FINANCE

VISIBLE SOLAR SYSTEM

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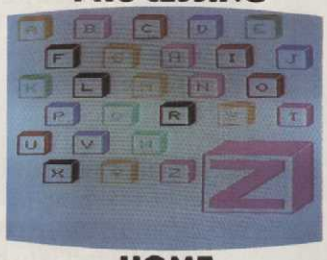
BINGO/ SPEED MATH



HOME BABY SITTER

ADVENTURE LAND

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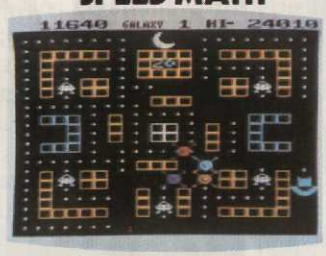
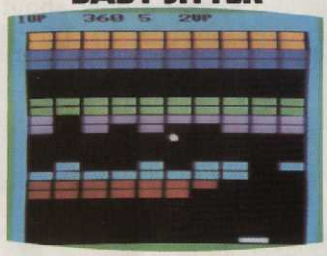
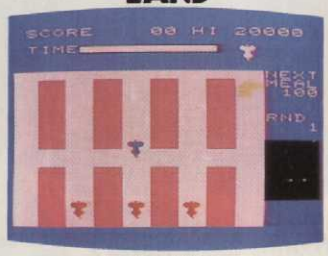


COSMIC CRUNCHER

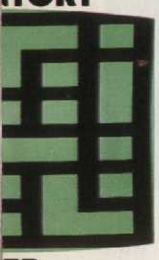


SUPER SMASH



RADAR RAT RACE

JUPITER LANDER



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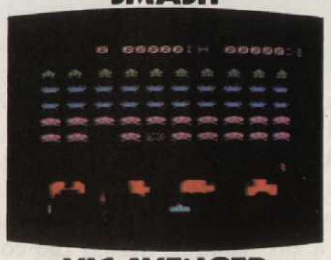
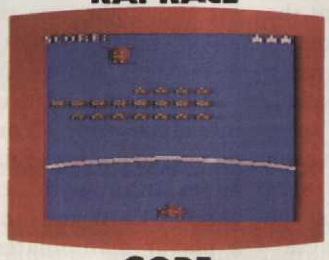


VIC AVENGER



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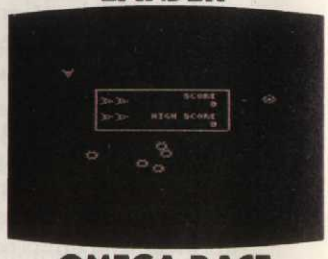

OMEGA RACE

What those extra few dollars get you is a simple little device called a Commodore VICMODEM.

It connects your telephone to your VIC 20™ or Commodore 64™ computer (resulting in something aptly called telecomputing), giving you access to information such as you see on the screens to your right.

Normally, you'd have to type a short program into your computer to help it make the final transition into a telecomputer.

However, when you buy a VICMODEM, you'll find we've included a free software program. You just load it into your Commodore Datassette Recorder, and presto (give or take a moment or two), you have access to a vast library of information and games.

Speaking of free, Commodore also includes a free subscription and a free hour's time on CompuServe™ and Dow Jones News/ Retrieval Service,® a free trial offer on The Source,℠ and a discount program offer with Comp-U-Store and General Videotex Corp.

Let's see. Did we leave anything out? Oh, yes. Along with CompuServe comes a free membership in the Commodore Information Network. This is your HOTLINE to Commodore. (How often do you get to speak directly to a manufacturer?) Through it we

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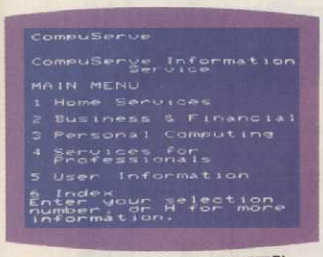
BUT DID YOU KNOW FOR ABOUT $100 YOU CAN ALSO GET IT TO DO ALL THIS?



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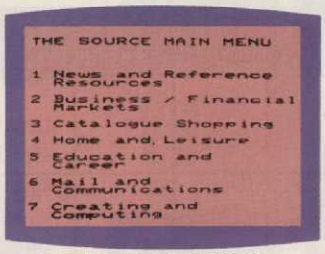

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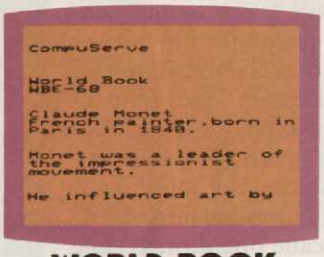

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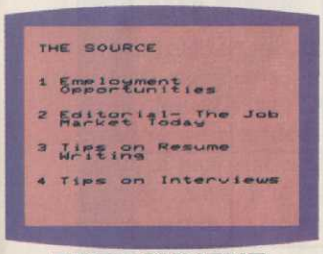
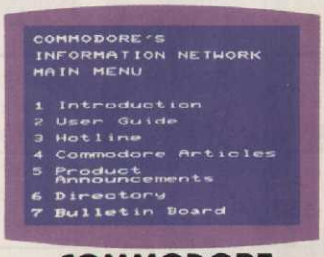
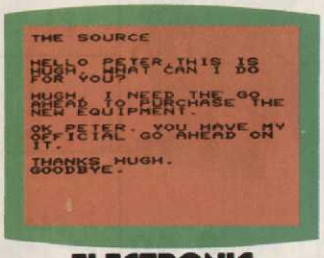


EMPLOYMENT OPPORTUNITIES



COMMODORE INFO. NETWORK



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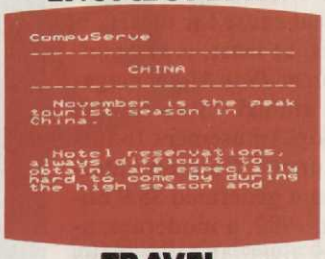

TRAVEL INFORMATION

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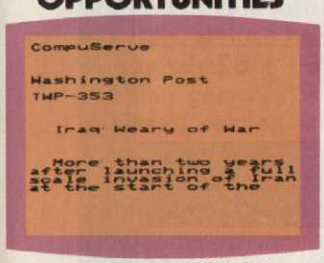
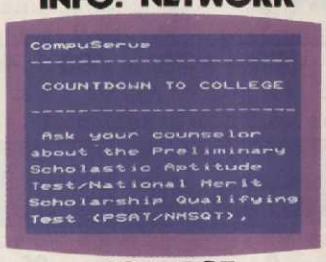
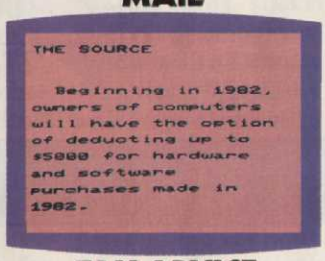


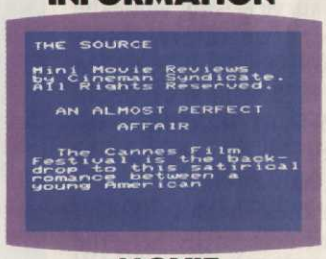
WIRE SERVICE NEWS



COLLEGE PLANNING



TAX ADVICE



MOVIE REVIEWS

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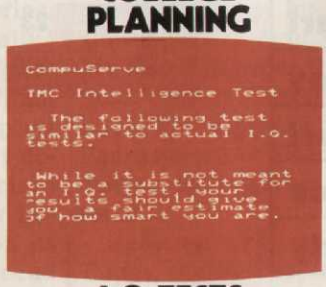
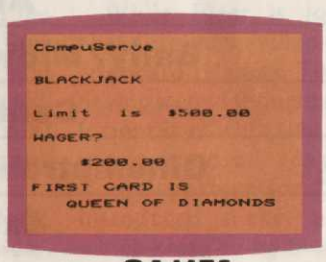
SHOP AT HOME



I.Q. TESTS



GAMES

SPORTS NEWS

BUSI

can answer any questions you might have about your computer, or programming, or anything else Commodore-related, via electronic mail.

The Commodore Information Network is also your direct line to the Commodore Bulletin Board, which Commodore owners use to keep in touch with each other, for programming tips, Public Domain Software, and technical support.

THE COMMODORE VIC 20, A REAL COMPUTER FOR THE PRICE OF A TOY.

Altogether, these little extras we've included with our VICMODEM add up to a value of $197.50. A nice return on an investment of around $100.

Some computer companies think it's reasonable to ask as much as $500 for telecomputing capabilities such as ours.

However, with the Commodore VICMODEM selling for around $100, we feel we're being a whole lot more reasonable. Don't you agree?

commodore COMPUTER

These are just a few examples from our existing library of software available for the VIC 20.
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Arcade Report Cites Ups & Downs of '82

Despite fears to the contrary, the public did not become bored with coin-op video games in 1982. It spent more money on these electronic quarter-eaters than ever before. But this did not exactly translate into profits for arcade operators. While the pie grew bigger, the way it was divided up proved to be a real cause for ulcers.

This, at least, is the conclusion of *Play Meter* magazine's annual "State of the Coin-op Amusement Industry" survey. Coin-op entertainment generated $8.9 billion in 1982, a moderate increase over the previous year's $8.2 billion, according to the survey. And, while the number of operators in business was up by 33 percent over 1981's total, the number of coin-op machines increased by 16 percent, to 1,793,000 in 1982.

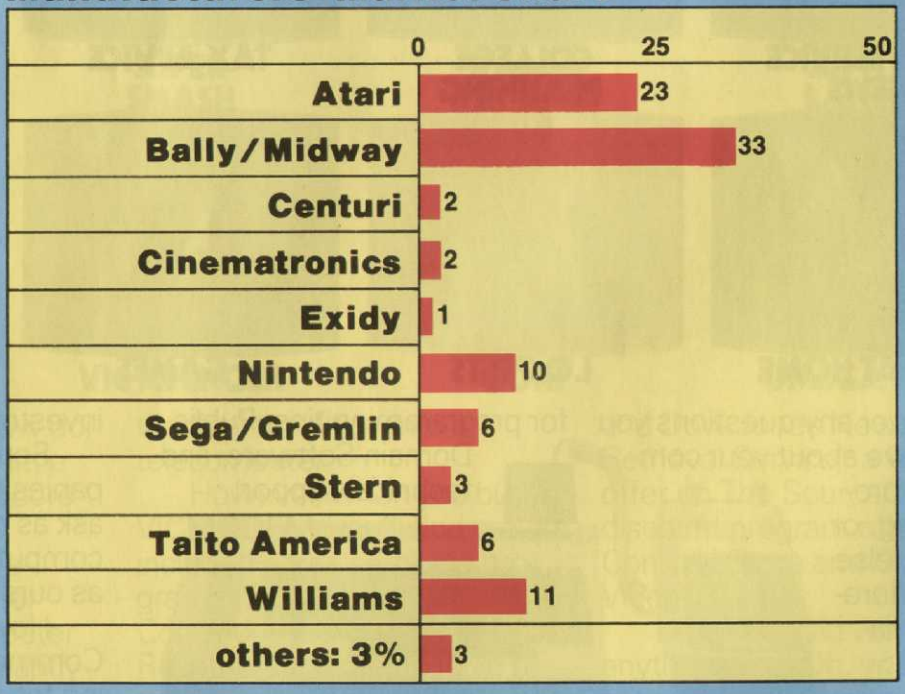
But these healthy figures did not necessarily help the operators. The arcade owners reported that to break even on a video game investment, the machine had to average $117 per week for a 10.5 month period. In 1981, video games averaged gross weekly collections of $140; last year weekly average plummeted 22 percent to $109 (see chart), with the games being "commercially viable" for only 7.3 months.

These figures, says the magazine, mean that "the expansion of video games, for the time being at least, has reached the point of diminishing returns and factories can hardly expect to repeat their 1982 sales performances anytime soon." The *Play Meter* survey also found:

- 1,375,000 video games on location, up from 1981's total of 780,000.
- Video games accounted for 87 percent of the coin-op industry's total gross collections.
- 67 percent of the operators surveyed reported making fewer purchases of pinball equipment in '82.
- Midway pulled a 33 percent video market share; Atari, 23 percent; Williams, 11 percent; and Nintendo, 10 percent. (See chart.)
- Of games making the "equipment poll" for five months or more, the top 13 games were: Ms. Pac-Man, Zaxxon, Donkey Kong, Robotron, Turbo, Galaga, Stargate, Tempest, Qix, Frogger, Pac-Man, Centipede, and Defender. —*D.S.*

Average video game earnings per machine

Manufacturers' Market Share



Fleer, Topps Vie for Gum Card Rights

Gum cards are cultural icons. Entire seasons of football and baseball, recorded for posterity on gum cards decades ago, today command high prices; since the late-'50s, movies of all kinds have been celebrated on cards; and during the '60s and '70s, television shows, ranging from *Batman* to *Charlie's Angels,* were added to the ranks of pictorial cardboard history. Now it's time for video games to be similarly immortalized.

Both Fleer and Topps, the two leading gum card manufacturers, are just beginning to capitalize on the most popular games. "We saw Pac-Man coming along as an attention-getter," explains Don Peck, president of the Philadelphia-based Fleer. "The game was appealing to our core audience of six to 14 year olds." Last spring, Peck approached Bally/Midway, the company that owns the rights to Pac-Man, with sketches and displays prepared by Fleer's art department, and he was able to secure a license. Fleer immediately had a hit on its hands. From May to the end of November, the card company paid Bally/Midway in excess of $600,000 in royalties, a figure that Peck expects will top $1 million in the next few months.

Each Pac-pack comes complete with three peel-off stickers, three maze cards and, of course, the legendary pink stick of sugar-coated chewing gum. Players rub off spots on the cards for points; if they hit three ghosts, they're dead. In the Ms. Pac-Man series, the four "acts" reflect different skill levels. Pac-Baby and Super-Pac cards will be Fleer's next delivery to the corner candy stand.

Refusing to be outdone, Topps, the industry leader, countered with Donkey Kong cards last summer. Like the Fleer packs, Topps' features rub-off cards, stickers and gum. The company will also follow with a Donkey Kong Jr. series. "We read a lot of articles and watched a lot of arcades before choosing Donkey Kong as our first entry," says a Topps spokesperson. "It's the hottest new game to come along since Pac-Man."

While Fleer is looking ahead to new video game gum card releases, Topps is having second thoughts. "The format itself isn't that exciting anymore," explains Topps' spokesperson. "We've introduced sticker albums which seem to be breathing new life into the area. They're imaginatively designed items with some copy that is more interesting to kids once the album is filled."

Peck's only problem with this new card category is the risks involved in licensing game titles. "It's like movies and TV. Picking winners is frought with maybes," he says. "The big question is: Which one do you pick next?"

Both companies, who have been rivals for years, are extremely sensitive about revealing the games they will release next. In the end, the kids may pass up the cards to play the actual games—even if it means missing out on the gum.

—Robert Greenberger

The Tandy-fied Intellivision, available at Radio Shack.

Playing Hardware to Get

After crying wolf so many times in the past four years, Mattel unveiled a revised version of its Intellivision keyboard computer attachment at the January Consumer Electronics Show (CES). The new unit, expected to sell for less than $200, should be available this summer.

Although the computer add-on still features a full 60-key typewriter-style keyboard, the built-in cassette deck featured in the original model has been sacrificed for the sake of compactness. "Consumer testing showed that people weren't pleased with the original computer's bulkiness," a Mattel spokesperson said.

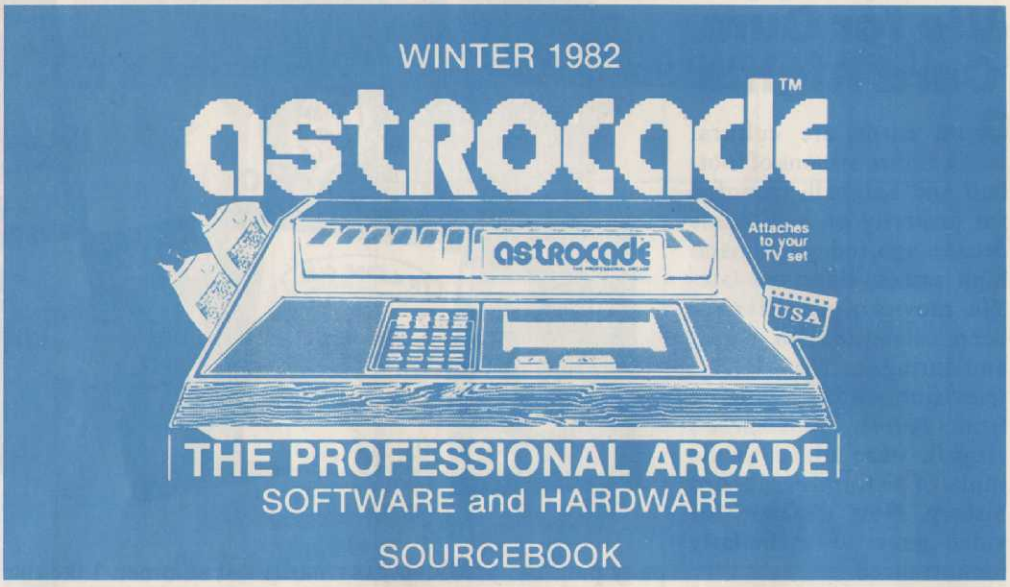
They weren't too thrilled with the price either, which was up around $600, hardly a competitive figure. In streamlining the product and cutting the cost, Mattel now feels confident that its customers will "step-up to a home computer," the spokesperson noted. "We're certain now that they are ready,

(Continued on page 20)

Going Straight to the Sourcebook

With a large game library of its own and companies like Activision, Imagic and even Mattel producing cartridges for its Video Computer System (VCS), Atari likes to claim the VCS offers more variety than any other TV-game system. Not so. The current numbers leader is Astrocade, hands down. Though Astrocade itself produces only a couple of dozen carts for its system, one of them is the Astrocade Basic, which includes a built-in audio interface. With a little practice, you can use Astro Basic to invent your own games and store them on an ordinary cassette tape.

Probably more important is that the audio jack allows you to plug in games that *other* gamers have created. During the past few years garage-type shops like L & M Software of Newburgh, Tenn., and Esoterica Ltd. of Warren, Oh., have sprung up around the country, producing TV-games on cassettes for the Astrocade system. Each cassette often contains two or more games and generally sells for between $10-15—considerably less expensive than most game carts. The problem is how to find them.



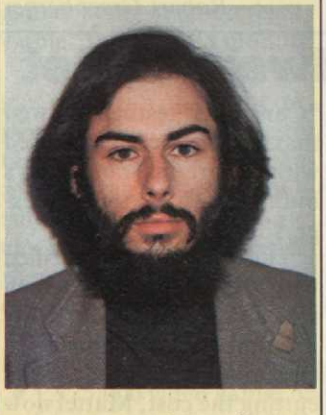
RHM Enterprises, of Livermore, Calif., has solved that problem with a sourcebook for every known game cassette and peripheral available for Astrocade. The book, much of which is comprised of the game companies' own catalog pages, details about ten companies as well as some 125 programs, mostly games. A general index lists approximately 325 programs, ranging from space and sports games to entries like a Beatles quiz and a mutation of Tic-Tac-Toe called Tic-Tac-Tollah. It also includes pertinent information on available hardware, mail order dealers, and user groups such as the nationwide Astrobugs organization. Did you know, for example, that two extended-memory keyboard computers, the Blue ram and the Viper, are available as add-ons to the Astrocade console?

Richard M. Houser, a project engineer at the Sandia National Laboratory in Livermore and a father of three, decided to publish the sourcebook after he was impressed by the one he saw for Radio Shack's TRS-80 in 1979. At first, he found little support, but gradually dealers (he charges them $50/page) and the software companies ($10/page) came through. He's just published the fourth edition.

"Astrocade has put out some of the best TV-games around," he says, naming Pinball, Galactic Invasion, and the Incredible Wizard, "but people are always squawking about how few cartridges there really are. The games I list range from very good to not so good. Because there's only 1.8K of memory available, the games are not very fast and only two colors can be on the screen at once." Houser personally recommends Star Trek III, written by Mark S. Keller of Orangeville, Calif. The price: $10.

Houser's Sourcebook would seem a must for any Astrocade owner. To obtain a copy of the winter '82 edition, send $8 to RHM Enterprises, 635 Los Alamos Ave., Livermore, Calif, 94550. —*Roger Dionne*

Quote of The Month



Howard Warshaw, designer of E.T. game: "It is entirely possible that Steven Spielberg is from outer space."

Mattel

given the marketplace growth of the last two years."

The new, fully programmable keyboard, which is driven by the master component's 16-bit microprocessor, doubles the entire unit's RAM capability to 16K. The computer has built-in BASIC and Mattel will be providing a range of software including a new generation of sports games.

The Los Angeles-based manufacturer also introduced its 52K Aquarius home computer at CES. It, too, is expected to come in for less than $200 and be in stores by the summer. Meanwhile, in an effort to boost Intellivision distribution, Mattel recently licensed Tandy Corporation's Radio Shack division to manufacture and sell Intellivision under the Tandy name. Dubbed Tandyvision One, the popular TV-game system and a selection of cartridges are now available in the more than 1,800 Radio Shack outlets worldwide. "We decided to carry Intellivision because we don't make a video game system," says Tandy buyer Bob Miller. But don't expect Tandy to sign up rights to the Intellivision keyboard so fast, warns Miller. The company, of course, carries a full line of TRS-80 computers.

—*Suzan Prince* ▲

THE GREAT DEBATE

Featuring Dr. Joyce Brothers, Ronnie Lamm, Don Osborne, Mitchell Robin, Dr. Philip G. Zimbardo

By Howard Mandel

Video games may be hazardous to the health of young people . . . More and more, people are beginning to understand adverse mental and physical effects of video games on preteenage and teenage children . . . There's nothing constructive in the games. Everything is eliminate, kill, destroy."

U.S. Surgeon General C. Everett Koop unloaded this bombshell last fall at a seminar on family violence at the University of Pittsburgh. The Associated Press picked it up and carried it to media outlets across the country.

But a day later, Koop retracted his statement, saying: "This represented my purely personal judgment and was not based on any accumulated scientific evidence, nor does it represent the official view of the Public Health Service . . . Nothing in my remarks should be interpreted as implying that video games are, per se, violent in nature, or harmful to children."

What to believe? After this highly publicized incident, a search of published studies—conducted at Koop's request by the American Psychological Association—turned up nothing to prove, or disprove, his point. In fact, little research has been done on the effects of video games. Most of what has been written on the subject is pure speculation.

But the urge to speculate—on how the games affect children and adults, and on what ways they are changing patterns of entertainment—is irresistible. Professional observers and concerned citizens are quick to offer their opinions to whomever will listen.

To present a wide spectrum of opinions on the subject, Video Games conducted a round table discussion by phone, asking several noted participants in the ongoing video games debate the same questions in separate interviews. The panel includes:

- *Dr. Joyce Brothers, the nationally syndicated newspaper columnist and radio commentator. A psychologist, she addresses a wide range of issues confronting society daily.*

• *Ronnie Lamm, president of a Long Island, N.Y., PTA District Council encompassing 12 schools and 14,000 students, and former teacher with a master's degree in early childhood education. She spearheaded a drive to stop the proliferation of arcades in her community in '81 and continues to urge for regulation of amusement centers in general.*

• *Don Osborne, vice-president for sales and marketing of Atari's coin-operated games division. An Atari employee since '77, he has prior experience in the educational technology industry and in public recreation, as director of a West Coast regional park system.*

• *Mitchell Robin, professor of child psychology and data processing at New York Technical College of the City University of New York and the New School for Social Research, also in New York.*

• *Dr. Philip G. Zimbardo, professor of psychology at Stanford University. He has studied shyness, madness, prejudice, conformity, violence, the nature of social identity, and behavior in prisons.*

VIDEO GAMES: Surgeon General Koop originally stated that "video games may be hazardous to the health of young people." Do the games, indeed, pose a threat of any kind to young Americans?

Dr. Brothers: I don't see them as posing any sort of threat, but they do have the potential for abuse. If the games become an obsession—if they're being played when homework is supposed to be done, or when money spent on them is supposed to go into something else—that isn't good for children. I'm also concerned about arcades where there's no adult supervision, because whenever and wherever children gather in groups, people who prey on children gather, too. So parents who let their children play games in arcades should stop by the arcades now and then to see what's going on. At home, games played in moderation are alright; I believe we all have the right to have some fun in our lives.

Mrs. Lamm: We're in a world where there are so many problems, some of which our children will face. We need people to populate this society of tomorrow who will look and find the creative solutions, rather than just press a button or turn on a switch in reaction to problems. The zapping and hitting and killing of objects on the screen—what is that doing to the consciousness of our children? It's an easy form of warfare, where children don't see the blood and guts and victims.

Mr. Osborne: I don't see the games as threatening at all. Young people are a heck of a lot more logical and understanding of the situation than most of the adults who are flying the banner decrying video games. Perhaps a small percentage—I'd guess less than five percent—are playing the games to an extreme degree. Most have a very wholesome attitude towards the games. They take them in stride. There's been a tremendous amount of distortion as to the amount of involvement young people have in the games—they're playing as they're doing other things, like reading books, being active in athletics, watching television and doing their homework. The involvement is not anywhere near what the critics have pointed out.

Mr. Robin: I don't think video games pose any threat to young Americans whatsoever. I know there's a great deal of controversy about that, but based on my research and some other research I've seen, it seems the games are probably beneficial, if used properly. I'm not talking about someone who's playing 24 hours a day, plunking in quarter after quarter to escape from a pressing problem; there are children and adults who do that, and they're addicted. They have difficult family lives, don't understand how to control their own lives, and escape into the games. But based on my experience, I'd say that's a minority.

Dr. Zimbardo: I'm Mr. Shyness. I've done research and written books for the last ten years on shyness, and what I see the games encouraging is isolation. The games seem to have a lot of appeal to people who are social isolates, who are loners or somewhat alienated. By playing them, it increases both the

DR. JOYCE BROTHERS

"Last year the rage was Rubik's Cube; this year it's video games; next year it will be something else... I believe we all have the right to have some fun in our lives."

amount of time they are not trying to relate to other people and their status from being good at something that does not involve any other human interaction. The question is: How is that going to prepare them to be social creatures? I think my answer is: It will not. To me, life is all about learning how to relate to and cultivate social resources, and the games tend to make those irrelevant, at best.

VG: Whenever the pros and cons of video games are discussed the matter of eye-hand coordination seems to pop up. It is generally accepted that the games teach this skill quite effectively. Is this at least one reason to get excited about video games?

Mrs. Lamm: Yes, there are children with very specific eye-hand coordination problems and, yes, very specific kinds of reaction drills that video games offer are needed to benefit these children. But for your average child, I don't see the need for that kind of eye-hand coordination—unless we're going to enroll them in the Air Force.

Mr. Robin: True, the games enhance eye-hand coordination, but that's not all. They tap into skills some children have that are acceptable to their peers, even though they lack skills in other areas that may also be acceptable. Let me explain: I'm your basic paunchy, middle-aged psychologist, and I was your basic, paunchy, non-middle-aged kid. I was not a great athlete, and in my neighborhood when I was growing up athletics were at a premium—you got brownie points for being good. I think there are a lot of kids out there who are finding that maybe they can't play basketball well, but darned if they can't play video games as well as their peers, and get a lot of moral support, peer support, for being a high scorer. That support is a rare enough commodity in the world that we need to encourage it.

Mr. Osborne: I don't think there's any question that eye-hand coordination improves significantly, and other visual skills are improved as a result of playing. The ability to deal with and manipulate information on a video screen is enhanced, and I do think this will carry over to greater involvement with computers. I don't think there's any question that it will be beneficial somewhere down the road. But to make a big ballyhoo about it and play it up is ludicrous.

VG: What is it about the games that make them so captivating?

Mrs. Lamm: The lights, the noise, the action—it's exciting to kids. But I have a concern about spoonfeeding kids these things. The accountant, the attorney, the doctor, plumber, electrician—that's not how they work. A boiler doesn't light up in red, green, and orange while the plumber's working on it. I think we're giving our kids a false impression of what life is all about. Not that education should be tedious. But if we allow our children to close their eyes and listen, really listen to music, something exciting can occur; if we encourage them to read a book, they can make their own music. If the child walks out of the gameroom feeling super-great, how long does that feeling last? I'm not saying that every moment of the day kids need to be involved in creative, intellectually stimulating activities; every once in a while it's fine to lay on your bed and do nothing, not even think. Our bodies need that from time to time. I just can't accept the "instant gratification" and "feeling of success" theories psychologists come up with. Video games is a meaningless activity.

Mr. Osborne: Where I live—San Jose, Calif.—more and more recreation programs are being taken away from kids because the cities can't fund them any more. The cost of movies, records, bowling is going up. Video games haven't gone up since 1972. It's an exciting, active involvement, an opportunity to extend one's fantasy world. Entertainment, laughing, just being able to have some sort of diversion from the oppression of reality is very necessary—video games provide that in a very special way.

Dr. Zimbardo: They're an incredible challenge, and there has been very little that poses the equivalent challenge of video games to young people in

"Video games put the player in command of enormous resources, typically to destroy some enemy. It's a military mentality. The question is: How much do you want to promote that kind of fantasy?"

DR. PHILIP G. ZIMBARDO

their lives, or their educations. The point is, you can learn to play without adult supervision, without elaborate instruction, and you can do it in a matter of minutes. Another reason they're so addictive is that you can improve on your own, simply by practice. You don't need any external motivation, it's all intrinsic; the challenge is within the context of "You can do it all." And then there's the instant feedback: Unlike most things in education, you know immediately whether you've done something right or wrong, whether you moved too slowly or too fast, too much to the right or left, or if you fired your weapons too soon. So you can make adjustments, you can learn. Playing video games is almost like having your brain wired into the system. And the instantaneous nature of the feedback not only makes the learning faster, but it's part of the excitement of the game.

VG: Is there any scientific research being done regarding video games?

Dr. Brothers: There's little that I know of—it's been a difficult subject to get funding for. I don't think research would be particularly useful, anyway—by the time it's published, the kids will be on to something else.

Mr. Osborne: There are a number of scientific evaluations going on through Veterans Administration hospitals and rehabilitation centers where video games have been shown to help people regenerate their skills. There have been studies with learning disabled children and kids with perceptual problems. I know of a Dr. Emmanuel Donchin, head of the psychology department at the University of Illinois, who is studying whether through part-task training on video games you can enhance whole-task training. The Atari Institute has funded a number of worthy educational programs involving the use of the computer. But let's face it—if Atari funded any study, the results would probably be considered biased. Funding really needs to come from objective third parties.

Dr. Zimbardo: I'm aware of a few projects: Mark Lepter, in the psychology department at Stanford, is looking at sex differences in the appeal of the games and in microcomputers. There is earlier work, done by Tom Malone at the Xerox Research Institute in Palo Alto, which focused on understanding what makes the games, and video displays in general, so addictive and exciting. At MIT, Dr. Sherry Turkle is writing a book on various aspects of video games; she is the one who's been researching the subject the longest.

I think if the Surgeon General is going to come to conclusions—even if he has the good grace to retract them when he finds them unsupported—he's going to have to have some research done, and this is the time to start, while there are still groups of children who *don't* play the games. The National Institute of Mental Health, the Office of Education—they should sponsor research, and so should the video game companies who are making enormous profits.

VG: Do you or your children play video games?

Mrs. Lamm: I have two children, a 13 year old and a nine year old; neither of them frequents the arcades, but my little one enjoys the games and plays them occasionally in her friends' homes. Two years ago we had a birthday party for her in a large arcade/restaurant, where the children were given two quarters to spend on rides and games. There was popcorn, and we were entertained by clowns—it was a lovely afternoon. It was supervised, and the children were limited to 50 cents, which was really all they needed at age seven. I can see it as a form of family entertainment, though we don't do it very often. Our priorities are different. But I don't claim everyone should have the same priorities as I have.

Mr. Osborne: I play about 30 minutes a day, which is not as much as I'd like to. I guess 75 percent of my playing is business-oriented, where I have to evaluate a product, and 25 percent recreational. I have a 16-year-old daughter and a 13-year-old son; we have an Atari Video Computer System

(Continued on page 72)

Photo by Dan Goodfrich/Newsday

RONNIE LAMM

"Video games is an easy form of warfare. The zapping and killing of objects on the screen—what is that doing to the consciousness of our children?"

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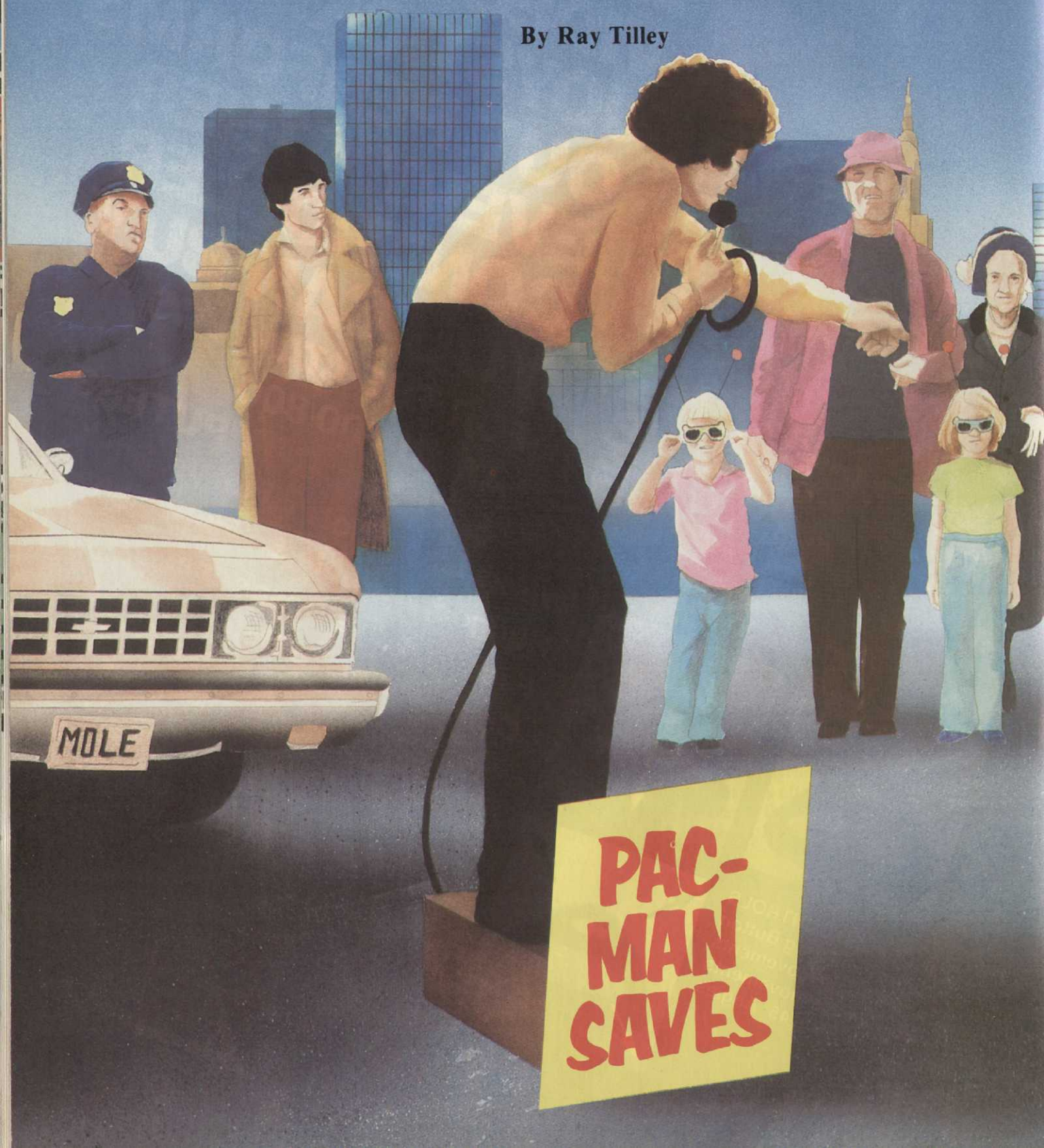
INTRUDER ALERT!

How does the public enemy #1 fight back? With a publicity campaign, of course.

By Ray Tilley



Put 10 kids in a playground on a nice summer day, give them a basketball, and you've created a scene worthy of a Norman Rockwell painting. Give those same 10 kids some quarters, put them in a video arcade, and you've created a public menace . . . or at least that's what the burgeoning groups of coin-op video game critics would have us all believe.

Coin-op video manufacturers, distributors, and operators are now faced with their greatest challenge. They have finally acknowledged the forces that threaten their industry the most—the reactionary groups and politicians who want to squash the arcade business. Not since Prof. Harold Hill pied-pipered kiddies out of the pool halls of River City, Iowa, has there been such a public outcry against organized indoor gaming.

For the coin-op industry to repel its critics' relentless attacks, it needs to improve its image. Let's face it: In the public's mind, arcades are associated with seediness, petty crime and moral corruption. And video games, in particular, are often perceived as hypnotic experiences that numb young minds and hustle kids out of quarters. That's why it's a relief to see at least a few signs that the industry is awakening to the need to deal with its serious public relations problem and put to rest these myths that unfairly

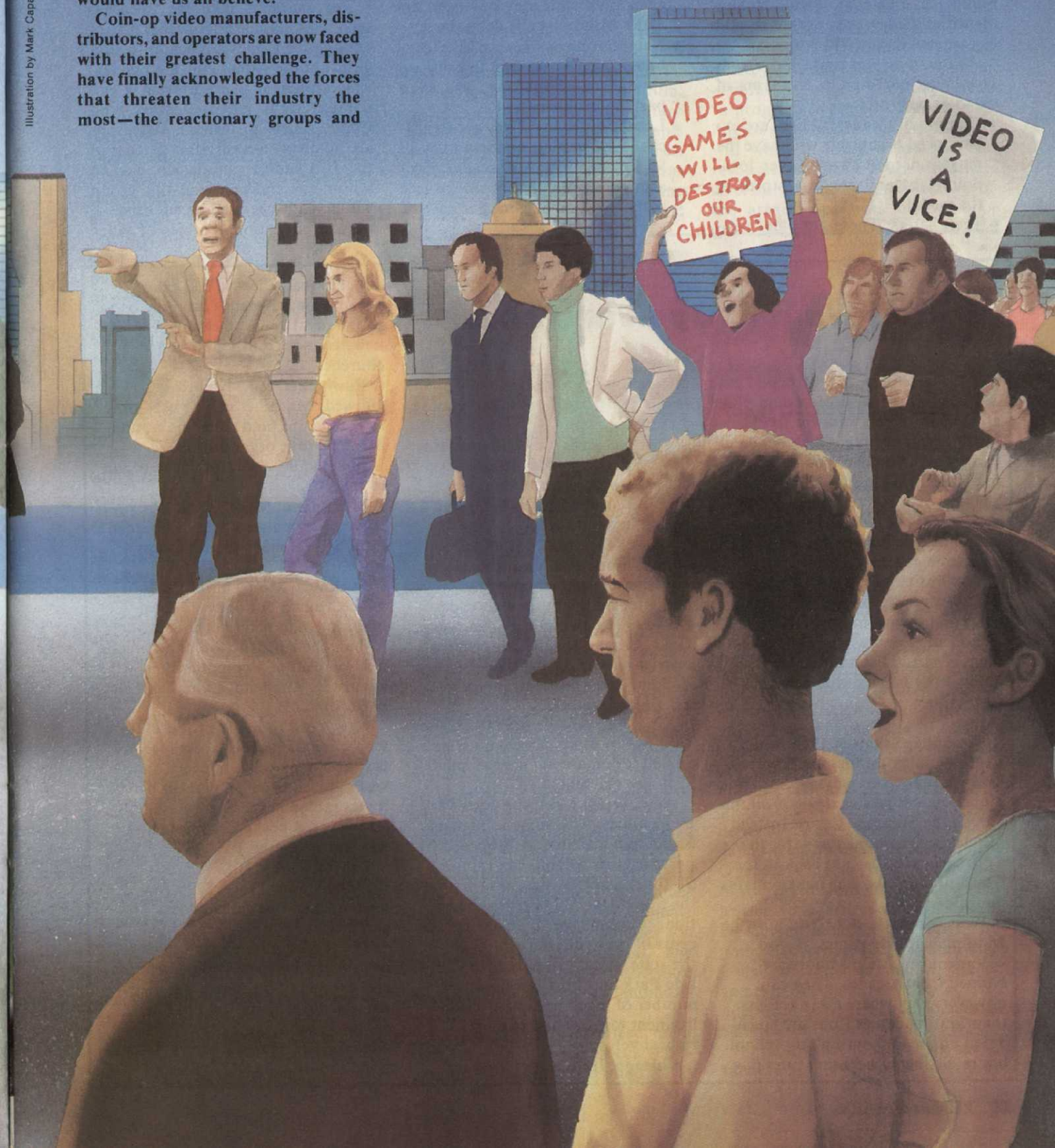


Illustration by Mark Caparosa

harass operators.

If the industry needs a game plan for a sophisticated public relations counter-offensive, it need look no further than a 116-page manual prepared by the Daniel J. Edelman Public Relations firm for coin-op operators, manufacturers, and distributors. Entitled "A Community Relations Manual for the Coin-Operated Amusement Games Industry," the report lays out a number of techniques to create goodwill. It also identifies the key groups that should be targeted in any PR campaign.

As Edelman sees it, the industry is now being harassed by five types of video game critics:

- Community leaders: These are experienced organizers who have the muscle needed to win over local politicians and create a storm in the media.
- Teen-haters: These are older people with no school-age children of their own who are convinced arcades breed juvenile delinquency.
- Neighboring businesses: Like teen-haters, they're the first to bring up vandalism, shoplifting, and even parking problems.
- Local politicians: They see significant vote-getting opportunities in leading opposition to arcades. They also see a potential income source in the taxation of game parlors and games.
- Law enforcement officials: They fear the destructive capabilities of teens in groups.

Not since River City has there been such a public outcry against organized indoor gaming.

To deal with such opposition, the manual provides pragmatic and detailed ideas for beefing up community relations and parrying the political hacks. It arms the arcade operators with the ammunition they need to deal with the business community, news media, and local elected officials.

For example, take the "teen-haters." The manual advises that it's not enough for games advocates to suggest that the games educate players. This argument won't prevent a city council fight when oldsters who simply object to teenage gatherings are involved. Seventy-five percent of the U.S. adult population has no school-age children, and this group will fervently back anti-arcade drives—even if educational values of video

So You Want to Open an Arcade?

Wouldn't it be great to open your own arcade so you could play all the games you want for free? Don't hold your breath. Depending upon where you live, you could be required by law to pay as much as $5,000 a year for an arcade license and $1,000 per machine—that's assuming you'll be permitted to start an arcade at all.

You'll stick to playing? Well, you can't always do that either. Certain cities and towns limit who can play video games and when. The following is a partial listing of areas with noteworthy bans, ordinances, and restrictions:

Mesquite, Texas: A 1974 ordinance banning minors unaccompanied by adults from playing video and pinball games was challenged all the way to the Supreme Court. Instead of setting a national standard, the Court referred the case back to the Court of Appeals. The issue remains undecided.

West Warwick, R.I.: You must be 16 to play arcade games, period.

Vancouver, B.C.: Minors are banned from arcades. They can, however, play where there are less than four machines (four are considered an arcade) during non-school hours. Stringent licensing rules (e.g., one parking spot for each machine) make it virtually impossible to open an arcade.

Dacono, Col.: An ordinance that makes arcade games off-limits to kids under 17 who are unaccompanied by a parent or guardian is being challenged in court.

Oakland, Calif.: Minors are banned from arcades during school hours, after 10 p.m. on weekdays, and after midnight on weekends. Berkeley, Redwood City, Thousand Oaks, Camarillo (all California) also restrict minors during school hours.

Some areas concentrate on restricting operators:

Etna, Pa.: Arcade operators (those with five or more games) must pay $5,000 for an annual license, plus $250 per machine.

New Jersey: Licensing costs vary by localities, with some as high as $1,000 per machine. A proposed five percent gross receipts tax (plus a $100 per machine state tax) is now in the State Assembly's revenue and finance committee. If enacted, 1.25 cents of every quarter would go to the state. Also, ordinances in Cliffside Park and Fort Lee limit the number of machines in any establishment to three and two respectively.

Chicago, Il.: Charges $500 for annual arcade license fees plus $75 per machine. Arcades can only be in commercial zones, meaning a specified distance from schools and churches.

Pawtucket, R.I.: No arcades allowed. Machines can be used only in bars, clubs, and roller rinks, and by non-profit organizations.

Meanwhile, operators have begun to fight back:

Marshfield, Mass.: Back in November, a state court overturned a total ban on video games in this town.

St. Louis, Mo.: This city's ordinance, ironed out between local operators and neighborhood leaders, forbids the construction of an arcade if 51 percent of a community is against it. Anaheim, Calif. has a similar ordinance.

New York State: A proposal for a whopping 25 percent gross receipts tax (about six cents of every quarter) was reduced to seven percent before it was tabled in the State Assembly. (However, a new gross receipts tax was just proposed.)

Los Angeles, Calif.: A proposal in the City Council for a $250-per-machine tax was defeated last summer.

The industry received even better news recently when a 10 percent federal excise tax on games was eliminated from a major tax bill after extensive lobbying by the Amusement Games Manufacturers Association, a trade group. —*Michael Fine*

games can be demonstrated. Though one public relations veteran says "the evil inherent in groups of teens congregating, as such, is far from clear," it is still an image problem that gamespeople must fight. Some stereotypes, like the one of tough-guy gangs hanging out in smokey poolrooms itching for a brawl, are hard to destroy.

In rebutting the more widely circulated myths that arcade games lead to drugs, gambling, learned violent behavior, delinquency, etc., the manual points out that some enforcement officials are *not* predisposed to look on arcades as youth hangouts. "Most police departments are hesitant to get involved in what they view as a 'parent-child' problem," the manual suggests. "Most police administrators would, in fact, endorse and support clean, well-run and well-lit arcades. It solves the problem of children and teenagers on the streets by putting them in a supervised atmosphere."

A further point often made is that arcades legitimately gather youths where community-supported activities are lacking. However, this is a weak argument because it puts the arcade games in a second-class role—like television as a babysitter. The operators and the playing public must boost the positive arguments *before* video game attacks are made by critics and local press.

One case history in the manual illustrates the value of beating video's enemies to the punch. In Clayton County, Ga., religious groups last year attempted to make church-going the only Sunday pastime. They asked the county government to close all coin-op amusement games on Sundays. Local operators retained an attorney, who quickly came to the conclusion that the church group was not pressuring other businesses to close all day, but instead was singling out only the coin-ops.

The lawyer met with the church leaders in private. "If you're concerned about church attendance, why don't we keep games closed down until noon?" he suggested. "If you're concerned about keeping the sabbath, why not close down all businesses in the county . . .?"

Operators in this case presented their own hard-economic argument, stressing the fairness, or lack of it, in the proposed "blue law" and avoided a clash that could have damaged coin-op's image in a religiously-oriented community. Rather than waiting for a public forum (such as a city council meeting) that could have turned into a kangaroo court, arcade operators made a move as soon as they sensed a potential problem. This strategy was effective public relations and led to an acceptable compromise.

Recognizing the need for public relations, Atari, the nation's largest video game company, has entered the coin-op fracas with its "Community Awareness Program (CAP)." It has produced a professional, 17-minute color videotape called "Video Games: A Public Perspective." The film, available to Atari distributors since last March, features everyday people stating their fears about video games, while others praise the games, such as a Chicago cop who says that gang violence on his beat was quelled when an arcade opened, and a researcher who explains some positive mental and physical skills gameplayers have developed.

The operators and playing public must boost the positive arguments before attacks are made by critics and the local press.

The shrewdest aspect of Atari's approach is its willingness to air anti-video game views. Not only does this tactic enable Atari's film to present counter-arguments (and hopefully win people over), it helps the industry to appear thoughtful and reasonable, qualities missing in the crusader rabbits on the other side.

As backup support for CAP, Atari is counting on distributors (the "wholesalers" who deal with the merchant/operators) to be clearinghouses for the public relations program. The company has developed a procedure for circulating the tape and monitoring the public's reaction.

It is a worthy project indeed, but it seems distributors have been reluctant to plunge into the program as heartily as Atari has suggested (for example, by hiring one full-time public relations person per distributorship). Distributors are concerned primarily with product sales, not PR niceties, and, to them, such a program is a waste of time and money.

But if the coin-op industry is to survive, this "let George do it" attitude on the part of distributors and operators must change. Distributors can't simply wail in distress and expect corporate giants such as Atari to be their Mario and rescue them from the clutches of the anti-video game donkeys. And the merchant segment of coin-op is all too ready to be given "a program to plug in" and less willing to give careful thought to what will work in local situations. The resources exist for a pragmatic offensive. But the lack of sophistication of the arcade operators often works against their own interests and those of the players.

If the industry has anything going for it, it's business comradery. Macy's may not talk to Gimbels but the marketers of arcade games are somewhat like a fraternity and the friendliest competitors in the U.S.—periodic lawsuits aside. So, common action is possible at that level. It was in such a spirit that Frank Fogelman, president of Sega/Gremlin, spoke on games legislation at the Amusement Operators Expo in Chicago last March. With politicians aiming their legislative sights on video games (in December, in fact, New York's outgoing Governor Hugh Carey suggested a statewide tax on arcade games), Fogelman strongly advised operators to take these courses of action:

1) In advance of any crisis, get an "action group" together: psycholo-

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gists, educators, parents, and others favorable to the games, who can provide quick aid (in the form of testimony) when anti-game legislation threatens to surface.

2) Retain a professional legal counsel and become versed in zoning and licensing regulations.

3) Use "peacetime" to set up positive community programs such as charity days at an arcade. Waiting until a crisis develops will make a Good Samaritan program seem like merely a bid to buy the heat off.

Some elements of the arcade industry have been keen to this strategy, most notably the Ohio operators association which has combed its members for the best clauses to advocate when local zoning or restrictive legislation is considered. The Ohio Music and Amusement Association is quite generous in sharing its research. (Contact OMAA at 16 E. Broad St., Suite 901, Columbus, Ohio 43215; 614/221-8600.)

But while the Fogelman proposals and the efforts of Atari and of coin-op PR consultants largely address the game distributors and operators, what about the role of the *player* in this struggle? He should be concerned as well, and possibly involved because there *is* a community of interest here. If we, the players, want freedom to play the games, then obviously our concerns overlap with those of the merchant.

If players are to help in clearing up the public's misconceptions about video games, some concrete moves must be made. One could be in the form of a national Video Game Players Association, restricted to members mature enough to take seriously a formal organization with a common cause.

Such a move has been tried before. Air-Hockey players, for example, have pushed for an annual air-table playoffs that would produce national stars in the field. Why not a video game championship receiving national publicity? Besides the obvious fun of such an event, the competition would help promote the games' image as a wholesome, all-American sport. In my estimation, the sounds of such excitement would drown out the voices of lawyers defending video game critics in thousands of city councils across the country.

If anyone doubts that the anti-games crusaders of today carry real weight in public opinion, I would turn back 25 years for evidence to the contrary. In those days, innovative comic books were light-years ahead of even the Marvels of today. Suddenly, there arose an outcry from self-appointed apostles to "clean up the comic books." Congressional hearings, combined with book industry timidity, strangled enough science-fiction and horror books to make today's followers of epic fantasy sci-fi movies weep. The imagery and intensity of sci-fi movies is only now approaching the creativity of comics 25 years ago.

Some stereotypes, like the one of tough-guy gangs hanging out in smokey poolrooms itching for a brawl, are hard to destroy.

Today, we interact with that coin-op Defender or Star Castle. If the industry that spawned these games is continually harassed, how many creative geniuses will end up with their talents wasted?

As we attain the rank of top space captains on the block, we should make no apologies. We should make ourselves heard as one, as an active alliance of consumers. ▲

Ray Tilley, a former managing editor of Play Meter *magazine, is now working in advertising in New Orleans.*

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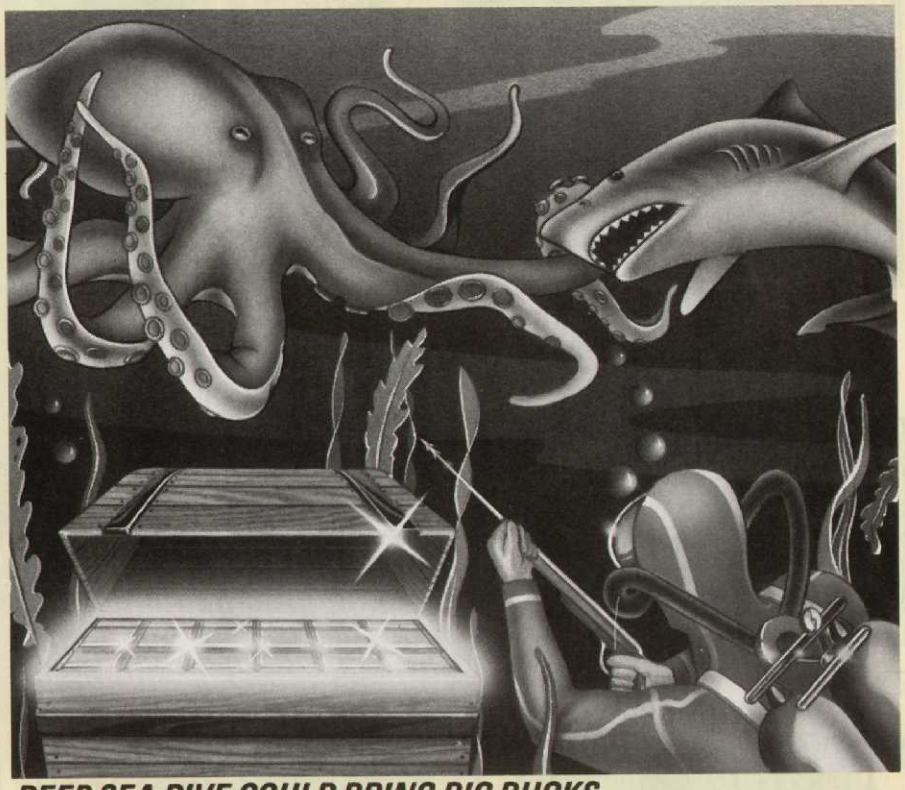

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THE VIDEO KID.
©1982 BY PETER BAGGE
"HIGH-SCORE HI-JINX"
HEH! HEH! HEH!
I'LL SHOW HIM!
HAW! HAW! HAW!
WHAT ARE YOU DOING, WEINER?
I'M GONNA KEEP PLAYING DONKEY-KONG UNTIL I BEAT THE VIDEO KID'S HIGH SCORE!
WELL, YOU'D BETTER DO IT BEFORE "ALL MY CHILDREN" COMES ON!
YEAH, SURE!
JUST ONCE I'D LIKE TO BEAT THE VIDEO KID AT SOMETHING! JUST ONCE! HE THINKS HE'S THE BEST AT DONKEY-KONG, BUT I'LL SHOW HIM!
OBSESSED
HEY! "ALL MY CHILDREN" IS ON! TURN THAT STUPID GAME OFF!
DROP DEAD!
YOU SAID YOU'D STOP PLAYING WHEN MY SHOW CAME ON!
I SAID NO SUCH THING! NOW GET OUT OF HERE!
HOW DO YOU TURN THIS THING OFF!!
HEY! GET OUT OF THE WAY! I ALMOST GOT THE HIGH SCORE!
I DID IT! I DID IT!!! I BEAT THE VIDEO KID'S HIGH SCORE!
?
GO AHEAD AND WATCH YOUR DUMB SOAP OPERA! I GOTTA CALL THE KID AND TELL HIM I BEAT HIM!
HEY KID, GUESS WHAT!?! I BEAT YOUR HIGH...
CAN YOU CALL BACK LATER, WEINER? I'M WATCHING "ALL MY CHILDREN".

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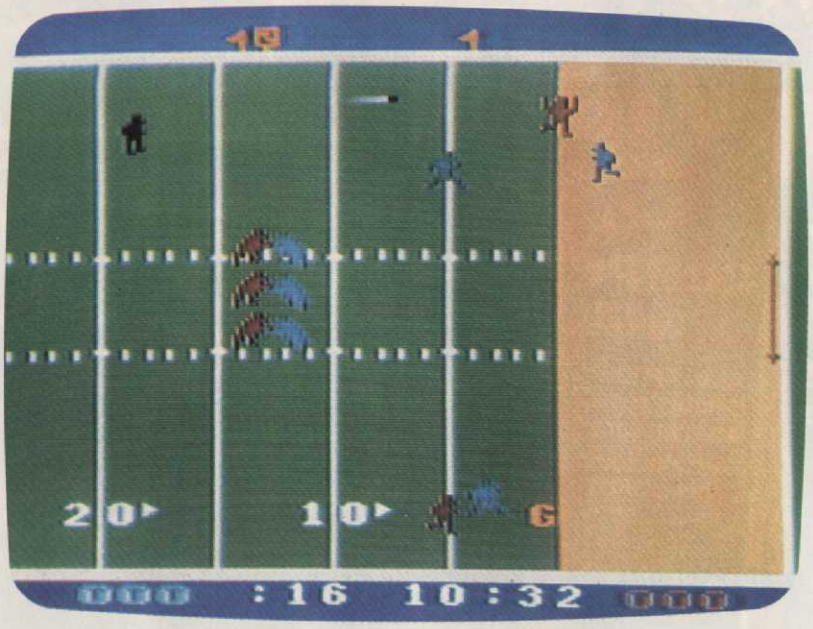

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Beating the Top 15 Coin-ops

By Michael Blanchet

Q*bert

Q*bert is like Pac-Man—easy to learn, fun to play, and difficult to master. Your job as Q*bert (the orange ball with legs and a big nose) is to turn all 63 squares on a three-dimensional pyramid into the same color. Change a color by using a four-way joystick to maneuver Q*bert onto a square. The keys to success are split-second timing, an understanding of how the pyramid works, and ice water in the veins to cope with the cast of loony characters who hop around the triangle trying to drive you mad.

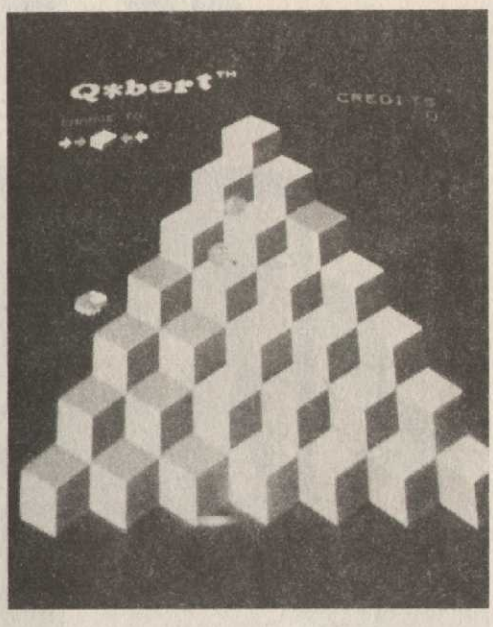
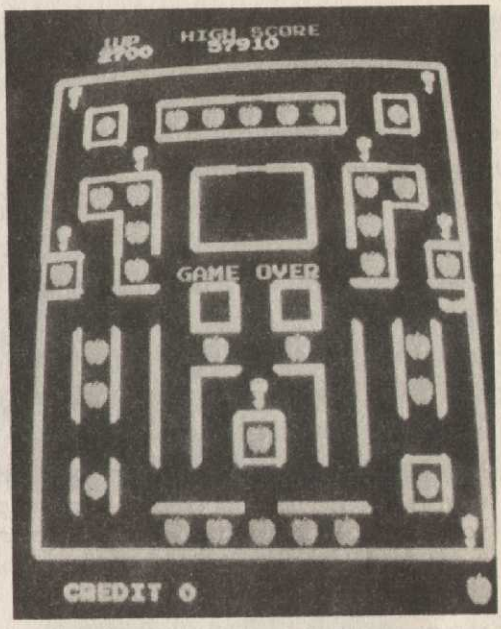


Photo by Perry Greenberg

1. You'll have to get used to the joystick. As simple as it may seem, being able to jump diagonally only can be difficult at first.
2. There are plenty of patterns in Q*bert. Quickly wipe out the bottom row of squares and any area that doesn't have a flying disc nearby (there are as many as four located to the left and right of the pyramid). Also, don't be afraid to jump on squares that you've already hit.
3. The most dangerous squares are in the lowest corners (easy spots to be trapped) and the two squares immediately below the top square (all your adversaries usually stop there first). Be especially careful in these spots.
4. Use the flying discs primarily to trick Coily the snake into falling off the pyramid. You do this by leaping onto the disc. If Coily is close enough to you, he'll try to follow you onto the disc too, but he'll be doomed—the disc will have taken off already, flying you to the top square. By the way, remember beforehand to leave some of the top squares the original color so you have something to do when you're back up there.
5. Avoid the purple creeps, Wrongway and Ugg—they'll only give you trouble. Learn their jumping patterns so you don't run into them.
6. The green guys, Slick and Sam, are another problem. They change the squares back to their original color. Go for them by touching them early, but if you miss the first time, don't bother chasing them.
7. The magic green ball freezes all the characters for a few seconds, but only when you catch it. This is your big chance to jump on the squares that are the most difficult to reach. But, again, don't chase after it—unless it's clear jumping.
8. As in all role-playing games, learn the playing field and the characteristics of all your opponents. You shouldn't have to worry about watching Q*bert. And always think three or four moves ahead.

Super Pac-Man

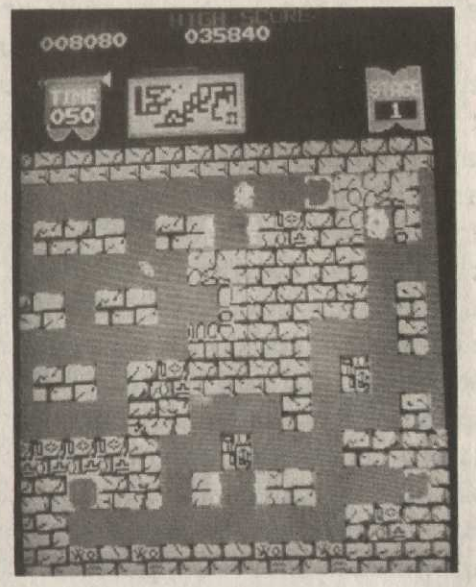
The Pac-Man saga continues with Super Pac-Man, the third reworking of Bally/Midway's ever-popular maze game. The object of Super Pac is consistent with its two predecessors—clear the maze and avoid the four ghosts. The changes here are mostly cosmetic: Instead of dots, the maze corridors are lined with edibles such as apples, bananas, hamburgers, donuts and the familiar energizers. Certain sections of the playfield are cordoned off by gates. To unlock them, first you have to devour the corresponding key, which is located nearby. But it's the large flashing green energizers that really distinguish this Pac from the others. He becomes ten times his normal size, and is empowered to chew through locked doors and pass through ghosts after swallowing a greenie. Another feature is the super speed button, which does exactly what it says when pressed.

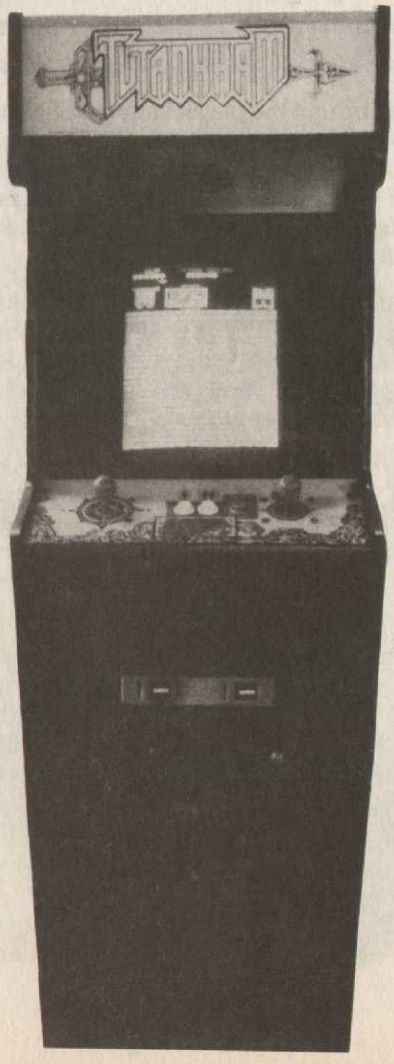


1. Move around the playfield devouring as many keys as possible before eating any of the fruits, burgers, donuts, or energizers. This will minimize the possibility of getting trapped in a box by a pursuing ghost. Incidentally, nothing says you have to eat every key to advance to the next screen.
2. When Pac is playing Superman, hold down the speed button. This will cause him to move faster, effectively extending the super period. Another trick is to eat regular power dots when super. The ghosts are worth double at this point.
3. Every third screen is a bonus round. As Super Pac-Man, you get to run through the maze uncontested by the ghosts. The object here is to gobble up as many goodies as possible before the timer reaches zero. My only advice is to hold down the super speed button while doing this.
4. At random intervals, a star appears between the two closed boxes right in the middle of the maze. Different objects appear simultaneously in those boxes. For the highest bonus, observe which object appears in the left box. When the identical object flashes in the right box, eat the star.

Tutankham

This search-for-treasure game by Stern (licensed from Konami) is reminiscent of Exidy's Venture, but is more colorful and absorbing. You play the role of a Dr. Livingstone-type character (I presume) who scrambles through a series of intricate mazes inside an ancient tomb. To ward off the tomb's denizens, you can only fire east or west or use a limited supply of "flash" bombs that (like "smart" bombs) annihilate every critter on the screen. But Tutankham is more of a running game than a shooting game.





1. Consider the snakes, buzzards and bats as no more than a nuisance, not your primary source of points. If you dally too long in any one section, an overwhelming force will begin to spring forth from one of the crypts.

2. Holding the gun joystick to the left or right causes it to rapid-fire. It's wiser, however, to **not** use this technique when large numbers of foes are approaching. Instead, bring the joystick back to center after each shot, which eliminates the need for a brief reloading period. This reloading break may give one of your enemies just the time it needs to catch you.

3. The second screen is divided into two separate labyrinths. Pick up the first key and head for the first lock. Once this is done, go back for the second key and head for the lock at the lower right-hand corner (the arena). Remember, you can only transport one key at a time.

4. After unlocking the first door, immediately head to the left. By moving to the right, you will awaken a nest of bats who'll begin chasing you. If this happens, duck into one of the niches in the vertical corridors and blast the bad guys when they come into range.

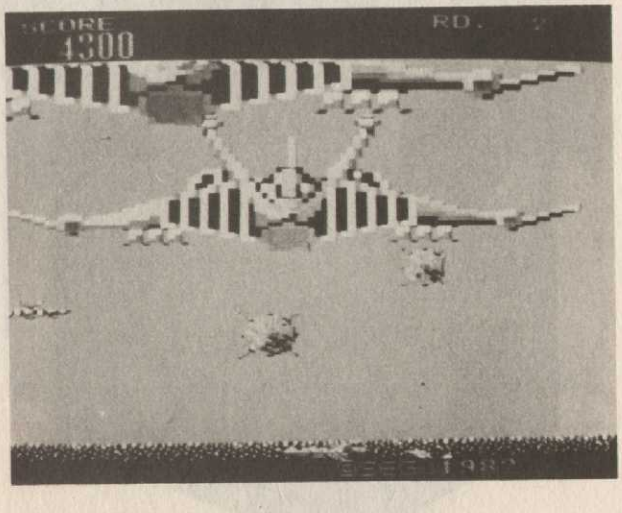
5. You are alloted only one flash bomb per screen, so get in the habit of using it. It's foolish to go a turn without igniting one, since you cannot store it for later on.

6. I recommend reserving a flash bomb for whenever you enter the open arena at the end of the second maze. You'll need it in order to confront the sizable force of bats—the quickest of all your enemies—that is waiting to ambush you.

Sub-Roc 3-D

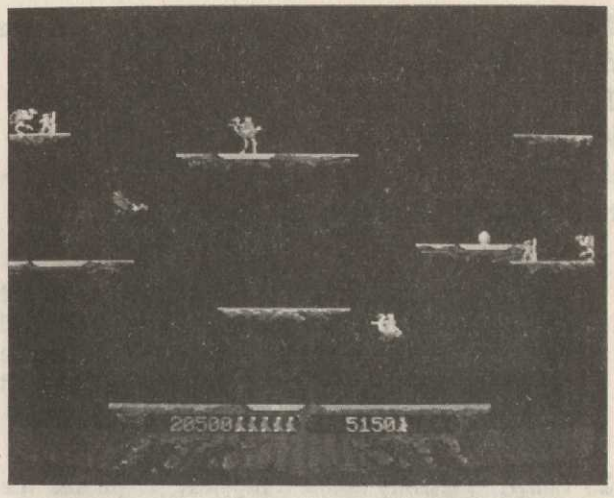
Though Sub-Rock 3-D's sights and sounds are definitely awesome, its gameplay is lacking. This Sega effort is one of those old-fashioned kill-or-be-killed tank-type games that just doesn't need much explaining. The pretty pictures really tell the story.

1. Since the controls are not adequately detailed anywhere on the cabinet, here's a crash course: The left periscope handle is used to pan to the left (pull) and right (push) of the playfield. At the base of the handle rests the fire button. The two buttons on the right handle control altitude; press the top one to go up, the lower to go down.
2. Firing constantly is the only way to handle the numerous enemy ships on the screen at any given moment. To rapid-fire, push the button repeatedly. But make sure to release it fully after each shot, or a misfire will result.
3. Battles are staged in both the sea and the sky. To become airborne, move far enough so that your missiles are in line with the oncoming vessels. The same goes for underwater warfare. There is also a gray zone where the two wars meet. This is not the best place to be because you're able to inflict the least damage to the alien forces.
4. Consider the vulnerable area of your ship equivalent to the size of the monitor screen. Any bomb or missile striking this windshield costs you a game life. As a defensive maneuver, steer left or right to avoid oncoming projectiles.



Joust

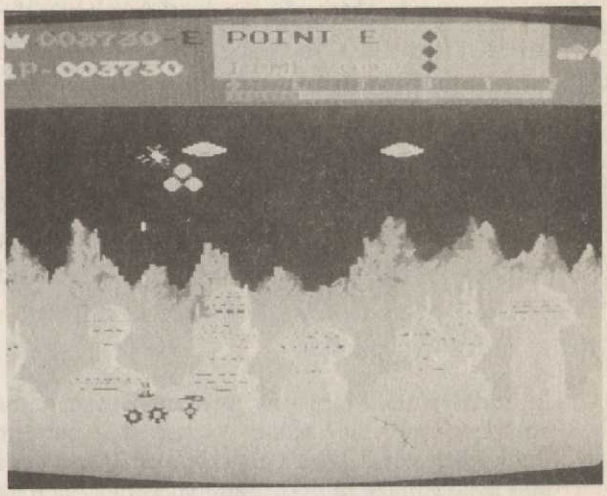
Sick and tired of shoot-'em-ups and bored to tears with maze games? Then try Williams' Joust, a game as elegant as the period it depicts. Your gladiator sits atop an ostrich while your opponents are mounted on buzzards. Since most of the battling takes place in the air, Joust comes off as a kind of 14th century Space Duel. The fundamentals and controls (joystick and "flap" button) of the game are easily learned, but difficult to master.



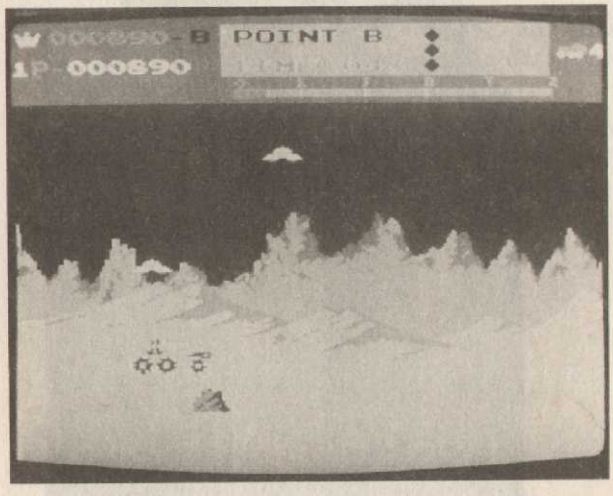
1. The flap button represents thrust. Press it and suddenly you and your ostrich go skyward. A couple of taps every second will hold the bird motionless. But release it and down you go.
2. To protect yourself from overhead attack, hover under one of the ledges that dot the screen. I like to station myself near the one in the upper right-hand corner of the playfield. Since the riders (your opponents) wrap around the screen (like the objects in Asteroids), watch one exit from the left side and re-enter on the right. Drop down and touch it—this causes the rider to be thrown from its buzzard.
3. Each time a rider is dismounted, its body transforms into an egg. Eggs hatch into new riders if you don't pick them up in time. You pick one up by simply running over it. If you catch an egg before it strikes the ground, you're awarded bonus points (from 250 to 750). The best strategy, however, is to allow the eggs to transform into riders, then flap over and grab them for 1,000 points each. You have a few seconds to accomplish this before they are picked up by buzzards.
4. By the third wave, the floor over the lava pit has burned away. This area is now off-limits to everyone. Venture too close and a hand on fire will reach up to grab you. If you are caught in its clutches, flap for all you're worth.
5. Every fifth screen is called the Egg Wave. The object here is to run over as many eggs as possible (which are located on the ledges) before they hatch into riders. You can also squash riders waiting for buzzards to pick them up.
6. Then there is a pterodactyl that can be had only by thrusting your lance into its open mouth. I don't, however, advise this strategy. Running away is much easier . . . and safer, too.
7. In two-player Joust, the second player controls a stork. The idea is to work as a team, but instead you end up colliding into each other more often then not. It's a nice try, but no cigar . . . from me, at least.

Moon Patrol

Moon Patrol is Scramble with a jeep. Traversing a lunar landscape, you shoot boulders, jump over ditches in your path, and encounter spaceships that drop bombs from overhead. One cycle is complete when you reach the five bases, which are strung out across the planet at equal intervals. Bonus points are based on the amount of time remaining on the clock when arriving at each base. By Williams.

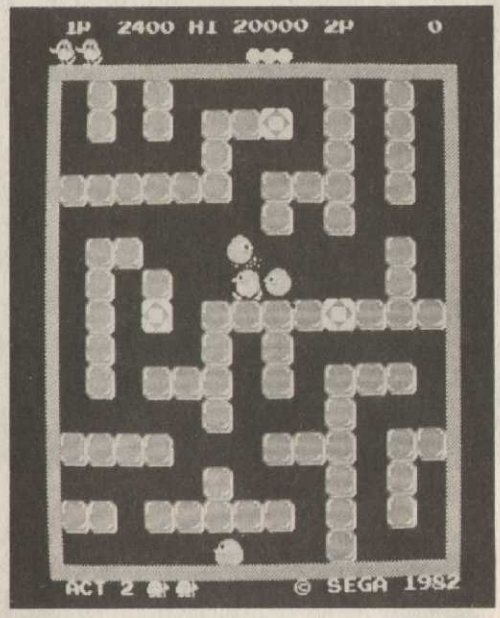


1. The two-way joystick serves as an accelerator (right) and a brake (left). The fire button launches two projectiles simultaneously, one ahead of your jalopy and one above. The forward missiles travel only two inches before exploding, while the airborne bombs go all the way up to the top of the screen.
2. The jump button is used to skip over ditches and boulders. Be advised: There's a brief delay between the time the button is pressed and your jalopy actually jumps.
3. In the higher levels, the boulders increase in size. Some require two hits to be completely destroyed.
4. If you come across a ditch with a boulder resting on the far side of it, release one shot before jumping and another just before touching down.
5. Dodge overhead bombs by pulling back and forth on the joystick. Some bombs make craters upon impact, so be ready with the jump button.



Pengo

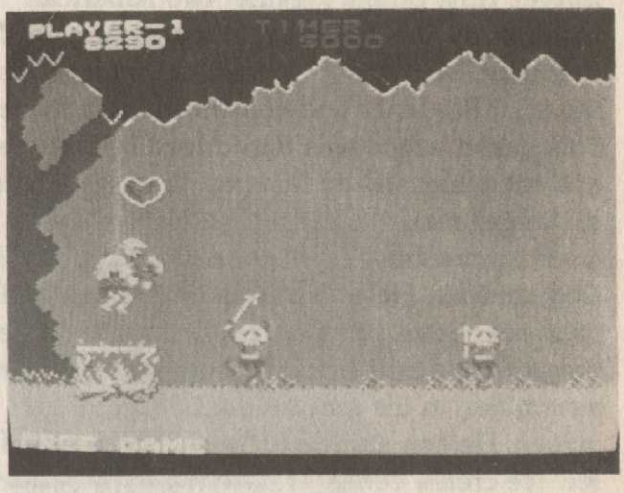
Maze gamers looking for something entirely different should try Sega's Pengo. As Pengo the penguin, you maneuver through a maze of ice blocks. No fruit or dots to gobble here . . . just sno-bees that are out to sting Pengo. To thwart these creatures, Pengo must bop them with ice blocks. Bonus points are awarded for squashing all the sno-bees within 60 seconds. A special bonus is also given for lining up three diamond blocks.



1. In addition to a four-way joystick, Pengo comes equipped with an "action" button that performs three different functions depending on Pengo's position in the maze. If your penguin is next to a free block (one that is not blocked by a wall or another ice block), you can send the block sliding until it comes to rest against a wall or another block; if a block is trapped against a wall or another block, it can be crushed; and if you're facing a wall, you can freeze it, thereby freezing any sno-bee that may be touching it at the time. All by merely pressing a button.
2. At the beginning of each game, a few of the blocks flash briefly, indicating the location of sno-bee eggs. Crumble them before new bees hatch.
3. Take to the offense as soon as possible, since the sno-bees become faster and smarter as the game goes on. Do this by positioning yourself behind free blocks and then pushing the button. Squash more than one bee with any one block, and you earn a bonus.
4. Each maze contains three blocks that have diamonds inside. If you're able to align them together—making sure none of them are resting against one of the walls surrounding the playfield—you're rewarded with 10,000 points.

Jungle Hunt

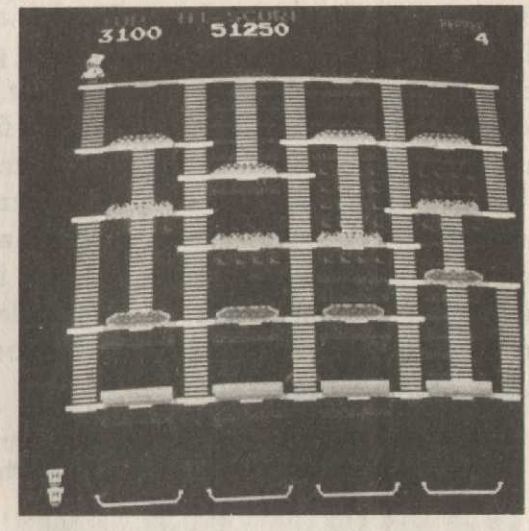
Taito's Jungle Hunt (aka, Jungle King) is a running, swimming, stabbing, and jumping game set in the heart of the video game jungle. As in Donkey Kong, the objective is to save a fair maiden who is marked as the main course for a headhunter's party. Our hero (you) must swing across the jungle via vines, cross a river that is chock full of crocs, climb a hill in the midst of an avalanche and, finally, hurdle the headhunters themselves. Now for the good news: There are no mosquitoes.

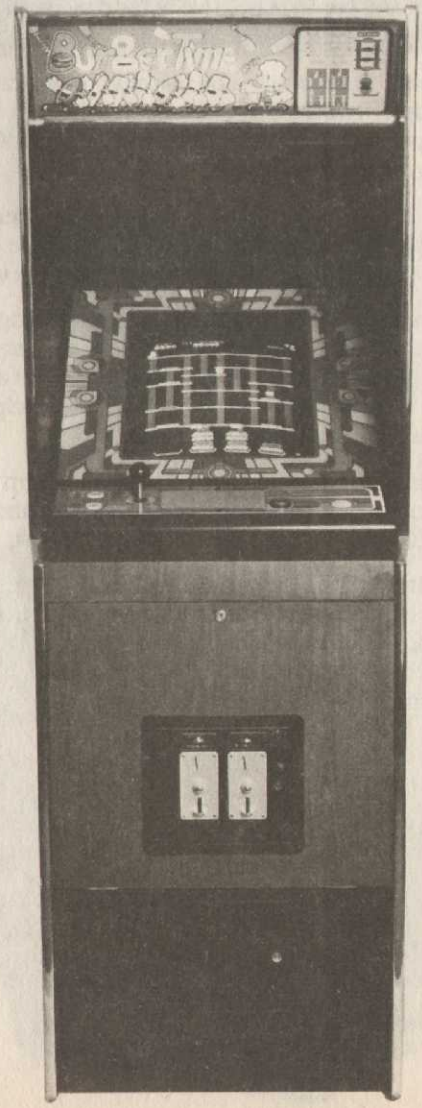


1. Jungle Hunt is more a test of timing than technique, so pay close attention to the order of events the first few times you play.
2. When jumping from vine to vine, aim for the lowest section of each rope. This will increase your jumping distance for the next leap.
3. When underwater, be careful to watch your air supply, which is monitored by the red line in the upper right-hand corner of the screen. When it gets low, simply surface.
4. Crocodiles can only be killed when their jaws are shut. When in doubt, skip 'em. Any true gamer will tell you that a few bonus points are never worth a life.
5. Avoid the masses of air bubbles rising from the river's bottom. If caught in one, you lose control of your man. This by itself will not cost you a game life, but if a croc happens upon you in this helpless state, you're very much in trouble.
6. When running up the hill you can jump **and** duck. Jump over the smaller rocks and duck under the two boulders.
7. Getting to the girl ain't easy. I take my cue from the rope that the girl is tied to over the cauldron. Just as it drops down the third time, leap over the two natives, watching out for their spears. As I said, it's all in the timing.

Burger Time

Burger Time brings together two American institutions, fast food and video games, for the first time. No, it's not Ronald McDonald chasing after Big Macs and shakes inside a maze. This game, which was introduced by Data East and then licensed by Midway, features a little ol' burger maker named Peter Pepper and such comestible characters as Mr. Egg, Mr. Hot Dog, and Mr. Pickle. Pete climbs ladders and runs over buns, patties, cheese, and tomatoes, the essential burger ingredients that must be assembled in the pans at the bottom of the screen. He can also go for bonus cups of coffee, ice cream cones, and french fries. Pepper, Pete's one defense, is released by pressing the shake button. It spoils his enemies rotten.





1. The ingredients are spread out over six to nine tiers in each of the six different screens. When Pete passes over one, it drops down a notch, knocking the ingredient below it down too. To save time, start at the top of each maze.
2. To temporarily eliminate Mssrs. Egg, Hot Dog, and Pickle, wait and drop an ingredient on them (like the rocks in Dig Dug). For additional bonus points, run over any ingredient while one of the bad guys is on your tail. If it falls while any one of the three is on it, that ingredient will drop down two notches instead of one.
3. To get them under the ingredients, move from the top of the playfield to the bottom and then back to the top. Each time you change position, they will follow. But since you can move faster and take a more direct route, position yourself so that they will be easy marks for burger parts as they ascend.
4. Pepper is thrown in the direction Peter is facing. One shake temporarily incapacitates your pursuer—when it turns brown, pass right through it. The effective range of pepper is quite limited, so be as close as possible to the target before throwing it.
5. You start with five pepper shakes and add onto this total each time you cross a bonus object. A pepper count is kept in the upper right corner of the screen.
6. Spend as much time as possible in the center of the playfield, even if there are no burger parts there. This is where the bonus objects appear. Head for them quickly, since they disappear before long.

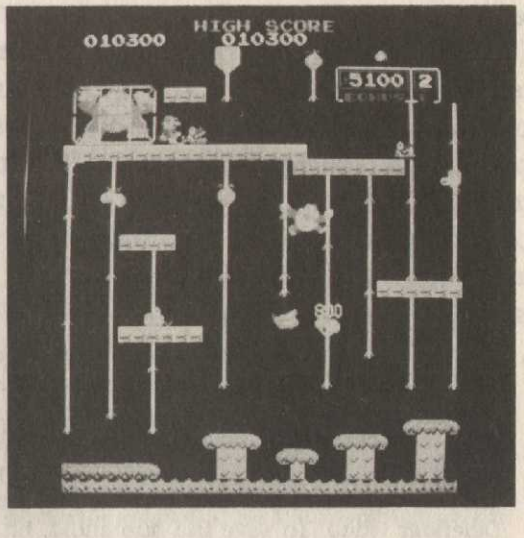
Defender Pinball

Defender pinball is the first accurate portrayal of a video game in the pin category. From play features to sound effects, Williams has captured the fast and furious pace of its most popular video game and repackaged it in authentic fashion in a pin cabinet. A good score depends not only on nimble flipper fingers, but a basic understanding of how Defender video is played.

1. Take a minute to familiarize yourself with the playfield before popping your quarter in. You are given ten men to protect. Each of these is represented by a drop target on the left side of the playfield. When a lander (seen as light images) abducts a humanoid, the machine sounds the same warning heard in Defender video. To save the humanoid, hit the lit drop target. If you fail to do so, it becomes a mutant and travels back and forth along the ten targets until you hit it.
2. Baiters, pods, and bombers are also presented as drop targets. Knocking these down not only adds points to your tally but brings you closer to the end of the wave. With each series of five waves completed, one extra ball is awarded.
3. There are two buttons on each side of the cabinet. The button on the near left activates reverse, while the one on the near right detonates smart bombs. Use reverse to bring a draining ball back into play. Smart bombs, as always, wipe out all enemies on the screen at once. Here, they are best saved to halt an onslaught of landers, or simply to rack up last-ditch points when the final ball is draining from the playfield.
4. To open the stargate, which allows the ball to roll from the playfield back to the plunger alley, aim for the bull's-eye that rests behind the drop target in the upper left corner.
5. Use hyperspace to warp ahead three waves at a time. First knock down the drop target, then go for the bull's-eye. But don't wait. The target will kick back up and you'll have to start the process over again.
6. The sound effects are identical to those in Defender video. By listening carefully, you'll be able to figure out more accurately what exactly is going on.

Donkey Kong Jr.

The second chapter in the Donkey Kong saga is a roaring success and deservedly so. Nintendo came up with a game that is so similar and dissimilar from the original at the same time that it couldn't go wrong. There are four screens: vines, chains, springboard and Mario's Hideout that are each reminiscent of one Donkey Kong screen or another. Like the barrel screen, the vines screen is the easiest. The rest is downhill—or I should say uphill—from there. Donkey Kong Jr. is so complicated it nearly defies description.



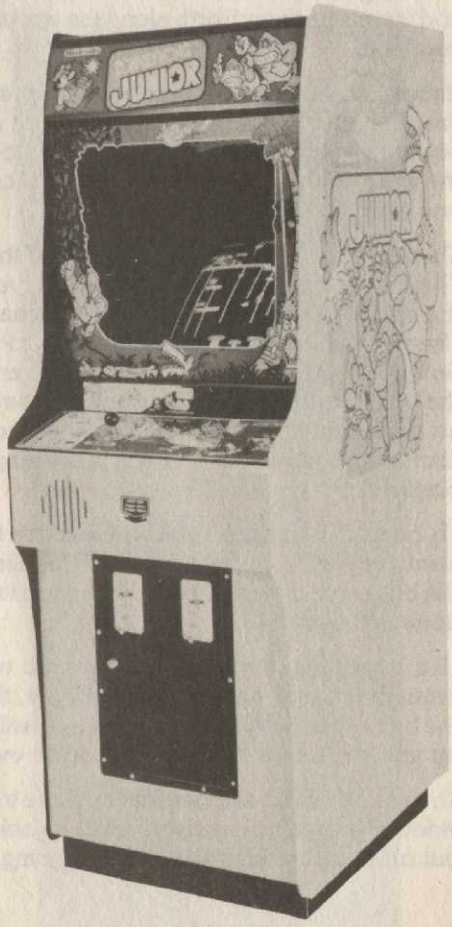
1. As a rule, climb up two vines, chains or whatever is hanging down two at a time. You'll move faster that way. Conversely, slide down on only one. Again, it's faster.

2. Mario, who is now your adversary, spends most of his time throwing down snapjaws from his perch up top. Either avoid them by grabbing a parallel vine or drop fruit bombs on them for points. Just wait for the snappers to position themselves under a fruit, then touch the fruit and watch it clobber the little bugger. I like to go for two red snappers at once by hitting them with the fruit just to the right of the banana.

3. The chain screen is like the Ziggurat in Donkey Kong. There are six chains attached to Papa's cage. Each requires a key (attached to the bottom of each chain) to release. In addition to snapjaws, you also face blue birds. The birds like to hang out to the far left and right as the round goes on, so work on these chains first. Bomb the snappers and wait for an opening to slide the keys up one at a time. Since the birds come in waves, there's a two-second lull that you must take advantage of if you ever hope to complete this screen.

4. The springboard screen is like the elevators. The first trick is to use the springboard to get to the middle platform. Timing is key here; a strong finger on the jump button doesn't seem to hurt either. At this point, there are vines that keep getting longer and shorter, and nitpicker birds dropping eggs. Again, use the fruit bombs to your advantage. The rest requires some nifty climbing and jumping.

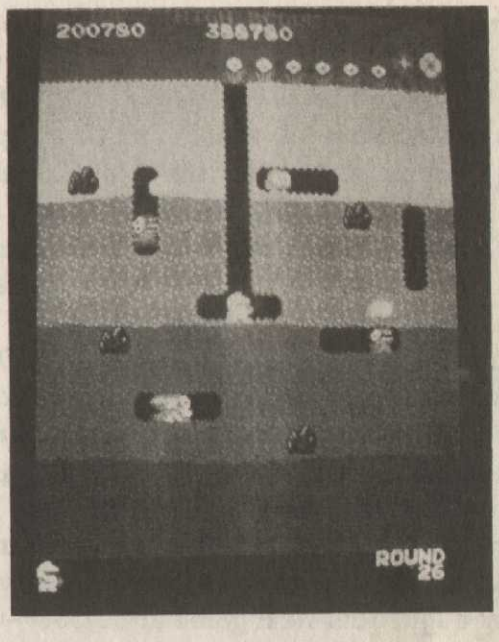
5. Mario's Hideout is the most difficult screen of all. Mario has temporarily given up on the birds and is manufacturing electric sparks that travel around pipes which, of course, you must negotiate. The trick here is to do some bombing (go for the orange sparks) and lots of jumping (without bumping into a spark that's above you), but mostly getting to the top as soon as you can.



6. Except for the chains screen, the object is to reach the key at the uppermost portion of the screen. Your reward is some of the weirdest video game intermission entertainment ever seen.

Dig Dug

Dig Dug is a game of many distinctions. It was the first video game Atari ever licensed (from Namco in Japan); it was also the original "carve-your-own-maze" game—a breed that has just about vanished from the arcades (though certain features, such as dislodging an object and then using it as a weapon continue to reappear in new games). The plot of Dig Dug, though farfetched, is comical and lighthearted. The game's central character, Mr. Dig Dug, who wears a space suit, burrows through the soil in search of Pookas and Fygars (fire breathing dragons). He can eliminate these nasties in one of two ways—by crunching them with boulders or pumping them up to the point where their bellies explode. Needless to say, you need a strong stomach to survive Dig Dug.

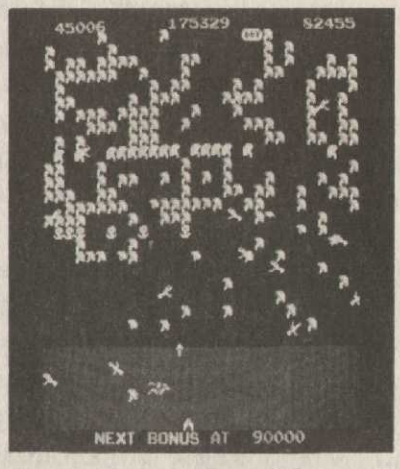


Photos by Perry Greenberg

1. A bonus "veggie" will appear somewhere near the center of the screen if you dislodge two boulders. Be sure to take advantage of this scoring opportunity. This only happens once per screen.
2. When two or more creatures are pursuing you, temporarily halt one of them by pumping two or three quick puffs of air into it. This won't kill it, but will give you the added time to fend off the others. Repeat this procedure for each succeeding creature.
3. Use this stun-and-run technique to group them behind you. Then lead them toward a boulder, knocking it loose when they are directly beneath it.
4. Before you drop the rock, dig a tunnel directly below it. Once the boulder is released, the monsters will try to escape by running down that tunnel. There's no turning back because you've got them trapped.
5. Fygars will pace back and forth, so time your attack properly. Pump them up when they are facing away from you. You are given more points for a horizontal attack on a Fygar than a vertical one. Fygars, by the way, turn white before they breathe fire.
6. You get the most points for dropping rocks on monsters, so develop patterns that allow you to do this as often as possible. In the later rounds, it's best to blow up a monster whose hole is directly below a rock and wait for the other monsters to run up the tunnel. Then drop the rock.
7. Dig intelligently. Don't open large areas of space—dig long tunnels all over the place so the monsters have to run long distances. This gives you more time.

Millipede

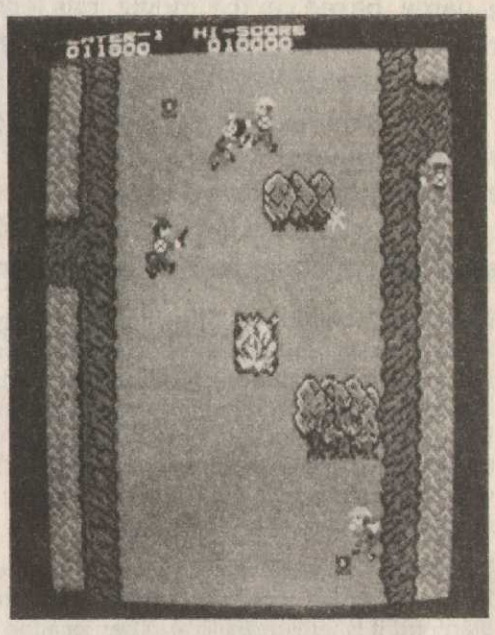
Sequel or deluxe versions of popular coin-ops usually fail to improve upon the games they were inspired by. With Millipede, Atari has done a laudable job repackaging and upgrading Centipede. You play the role of an archer who's job is to ward off millipedes and spiders (as many as six may appear on the screen at once), earwigs (in lieu of scorpions), dragonflies, mosquitoes, beetles, bees and inchworms. To assist you, a supply of DDT bombs are scattered about the mushroom patch. Hit one directly and it explodes, resulting in a cloud that fumigates everything in its way. Millipede also features "skill-step." For example, if you exceed 60,000 points in your first game, but score less than 75,000, you may begin your next game at 60,000—with a fresh supply of lives.



1. Your shooting zone is shaded lighter than the rest of the playfield. Keep this area free of mushrooms. After each wave, the mushroom patch reappears one step closer to your zone.
2. Since there's a limited number of DDT bombs, be particularly careful not to hit them accidentally. Wait for either a long millipede or a swarm of bees, mosquitoes or dragonflies to congregate near a bomb before hitting it. Anything wasted by the DDT cloud is worth triple the normal point value.
3. Spiders bounce in place and move diagonally in your zone; they cannot backtrack. If one enters from the right side of the screen, move to its right—unless you want to go for it. The spider is no longer a threat once this is done.
4. Dragonflies swoop down from the top of the screen, banking left and right like galaxians. Move to the top of your zone as they approach. If you miss on the first shot, lower your position and fire again. Don't worry about missing them—dragonflies possess limited lateral movement, which allows you to escape them by shifting sharply to the left or right.
5. Mosquitoes fly diagonally, bouncing off the left or right borders of the screen upon impact. To avoid a collision, be sure to gauge its carom precisely.
6. Beetles pose a double threat since they can enter the playfield from either the left or right sides of your zone or from the top. Fortunately, they're easily outsmarted. If a beetle is going from right to left, simply move to its right and you're out of trouble. My advice, however, is to shoot them instead. This is the only way to stop them from turning mushrooms into indestructible flower barriers, which they accomplish by touching a mushroom.
7. Bees are better known as superfleas. They are speedier than the average flea and even become faster when hit for the first time. It's the second that does them in.

Front Line

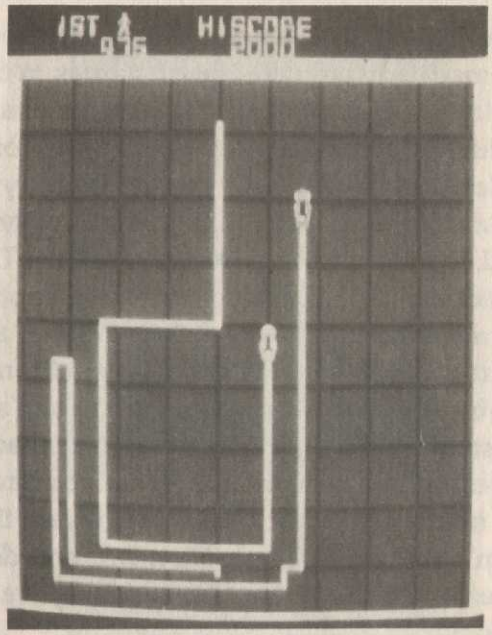
Taito has a knack for coming up with some of the most original and offbeat games in the business. Its latest, Front Line, is an example of this. With pistol in hand and a sack of grenades at your disposal, you (an infantryman) must maneuver through fields and rocky wasteland, avoiding enemy troops all along. The object of Front Line is to reach and capture the enemy fortress. The controls consist of an eight-position joystick, an eight-position firing knob—similar to the one used in Taito's Wild Western—and a grenade button. Instead of travelling in a straight line, grenades have an "L" shaped trajectory. Thus, a grenade thrown from a three o'clock position falls and detonates at a point somewhere around five o'clock.



1. It's not necessary to score a direct hit on enemy soldiers or tanks. Simply fire in the area where they are located and watch them blow. Later on, when you encounter snipers perched in trees, a grenade lobbed at the base of the tree will do the job.
2. Avoid the mines that are scattered along the course. In certain situations, though, they can be put to good use, such as when a group of soldiers is standing near a mine. Blasting it will kill all the troops in the immediate area.
3. Keep moving at all times. Try to kill all troops as swiftly as possible since each troop passed up eventually catches up with you later in the game.
4. When confronted by green enemy tanks either grenade them or climb aboard a blue tank. Stick to the dirt roads when inside the tank (it travels slower on the grass). If hit by an enemy shell while you're in it, jump out before the tank explodes. To do this, push the grenade (aka, panic) button.
5. To destroy the fortress, you must leave the tank and score a direct hit on the fort with a grenade.
6. For temporary protection, position yourself behind one of the brick walls. Keep an eye out for grenades coming from enemy foxholes.

Tron

This game, based on the movie, has legs. As in Gorf, Midway's Tron whisks you through four separate contests—against tanks, light cycles, the MCP cone, and grid bugs. Unlike in Gorf, however, you never know in what order the games will appear after you complete the first round. Tron's controls consist of a Gorf-like joystick-with-a-trigger and a rotating knob.

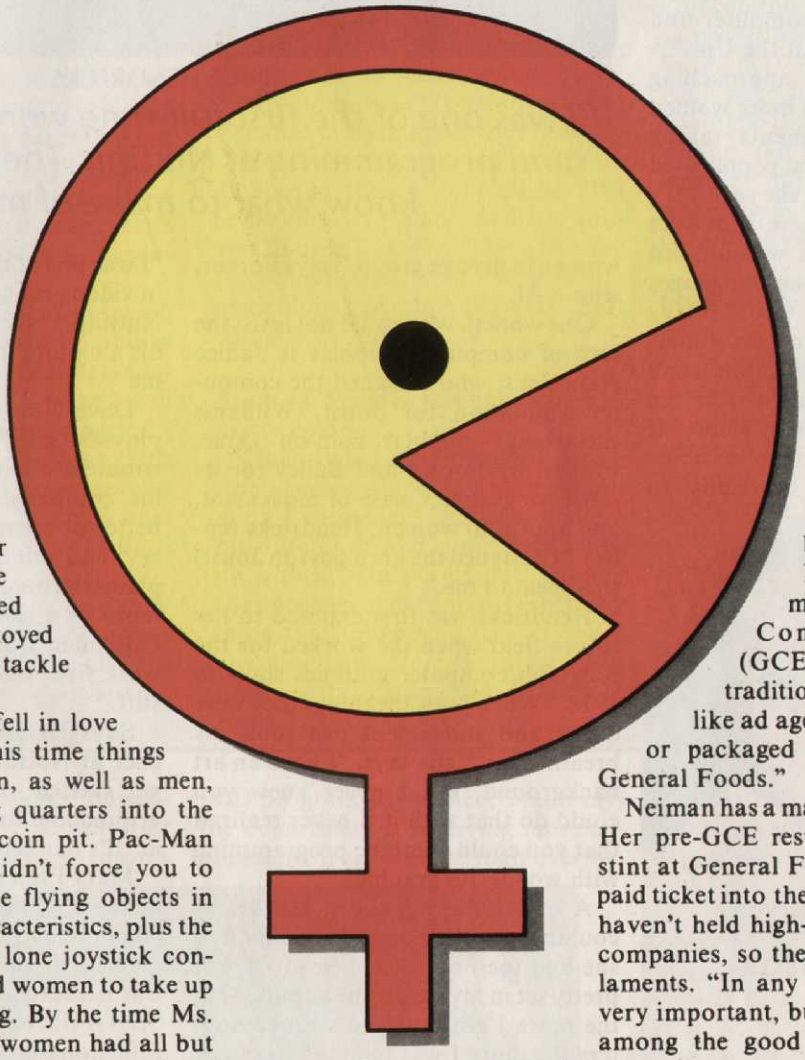


1. In the tank battle, you must hit the enemy three times to destroy it, while the enemy needs only one hit to finish off your tank. To even the odds, your cannon is capable of rapid-firing as well as caroming blasts against walls. Your best defense is to use the thin lines in each passageway as markers. As long as you don't step across the midway point you're safe from lethal volleys.
2. The orange diamond in the center of the screen is a handy defensive tool. When your tank enters the diamond it is jettisoned to another location on the grid—it's like hyperspacing. The diamond also serves as a shield. Enemy shells cannot fire through it, though yours can.
3. If you're good at Atari's Surround cartridge, the light cycle game should be a breeze. It's best to move at full throttle until you're sure the opposing bikes are boxed in. In later rounds, box yourself in. This seems to confuse your opponents, causing them to collide with each other.
4. To enter the MCP cone, clear a path through the rotating band of MCP rainbow blocks. Initially, the blocks move left to right, so move as far right as possible and fire away. For 1000 extra points, clean out all the blocks before entering the cone.
5. In later rounds, I advise firing straight up from a center position. This seems to produce additional firepower. When the hole you've blasted is large enough, slip up through it.
6. Rack up bonus points in the grid bug game by blasting your way to one of the side entrances and then waiting there for the warning tone, which indicates that you have three seconds to shoot before slipping into the bonus hole. ▲

BEATING THE TOP 15 COIN-OPS written by Michael Blanchet, author of *How to Beat the Video Games, How to Beat Atari, Intellivision, and Other Home Video Games* and a weekly column syndicated by the *Chicago Tribune*. Donkey Kong, Jr. and Q*bert written by John Holmstrom. Cover illustration by Walter Gallop. Special thanks to the Fascination arcade in New York City for allowing us to photograph on the premises.

Welcome to the Club

Having liberated the arcades, women are just starting to make their presence felt in the mostly male game business. **By Anne Krueger**



Four-and-a-half-years ago, when Space Invaders first appeared at my neighborhood bar, I was one of the few women to play it. Most of the other women called the game a "boy's toy" and ignored it. I remember being annoyed that they felt no urge to tackle this curious challenge.

A few years later I fell in love with Pac-Man. But this time things were different: Women, as well as men, were eagerly dropping quarters into the machine's bottomless coin pit. Pac-Man had personality and didn't force you to shoot up unidentifiable flying objects in space. It was these characteristics, plus the game's easy rules and lone joystick controller, that encouraged women to take up the art of video gaming. By the time Ms. Pac-Man came along, women had all but liberated one of the last bastions of male privacy—the arcade.

Bally/Midway, Pac-Man's manufacturer, claims the percentage of women playing video games has risen from eight to 30 percent since the introduction of Pac-Man in 1980. During that same period, women have begun to make inroads in the game business. It was once rare for a woman to be hired in marketing and game design capacities. Now it seems every company is making an effort to recruit women for these jobs. In my research, I turned up 15 women in positions that are not related to promotion, publicity, or advertising.

"Most women in business," explains Hope Neiman, director of marketing at General Consumer Electronics (GCE), "have been in avenues traditionally more open to them like ad agencies, marketing firms, or packaged goods companies like General Foods."

Neiman has a math degree and an MBA. Her pre-GCE resume, which included a stint at General Foods, was not exactly a paid ticket into the business. "Women just haven't held high-level positions in other companies, so they can't cross over," she laments. "In any business, networks are very important, but they're usually set up among the good ol' boys who've been around the industry. Consequently, men hire other men. Most new companies are started by men in high-level positions who need to find other men in high-level positions."

As a lowly designer/programmer, Dona Bailey was able to avoid this catch-22 situation. She simply quit her programming job at General Motors and signed up with Atari's coin-operated games division in 1980. Centipede was her first project. "I really like pastels," she says, "which is why there are so many pinks and greens and violets in

Centipede. I really wanted it to look different, to be visually arresting. I think that's a new emphasis in games."

Says Ed Logg, Bailey's partner on the project: "Centipede was definitely aimed at the women's market. I'm not sure that without Dona's viewpoint it ever would have made it there."

Susan Forner, a freelance game designer and graphics consultant at Bally/Midway's game-design subsidiary Dave Nutting Associates (DNA), says the demand for quality programming in the intensely competitive game business is making sex discrimination less of a problem. It's not so much a question of what women can bring to video games, but "what artists can bring that engineers can't—namely, appealing graphics," she insists. A self-taught artist, Forner studied computer and electronic visualization at the University of Illinois before approaching Nutting. "I see more and more women in engineering departments taking programming courses that people used to think were too hard," she says. "It's getting to the point where it doesn't matter whether you're a woman, but how many programming languages you know."

Forner is now working on a nonviolent, educational game. She can't discuss details other than it won't be either a shooting or strategy game. "It will appeal to people who've never played games before, especially to women in my age group," says Forner, who is 31.

SUE CURRIER

"Sometimes we're our own worst enemies."

Photo by Steve Kagan

JANICE HENDRICKS

"I was one of the first full-time women in graphics and programming at Nutting. They didn't quite know what to make of me."

One woman who could not resist the lure of computer graphics is Janice Hendricks, who designed the computer animation for Joust, Williams Electronics' popular coin-op game. Praised by Forner and Bailey for its sensitive graphics, ease of movement, and appeal to women, Hendricks replies: "I designed the graphics (on Joust) to appeal to me."

Hendricks was first exposed to her future field when she worked for the Siggraph computer graphics show in 1978. "When I saw the things they were doing and showing it just took my breath away," she says. "I have an art background, but I never knew you could do that with it. I never realized that you could combine programming with wonderful graphics."

A psychology major, Hendricks couldn't get the computer animation she had seen out of her head. "I was pretty set in my field," she admits, "but the more I got involved with computers the more I was tempted to putter around with them. Actually, I thought that by taking a few courses I'd get it out of my system. Instead, it got worse!" Hendricks ultimately decided to get a master's in engineering, not psychology.

In 1979, she again worked at Siggraph, and this time she introduced herself to people at the Nutting booth. Three months later Nutting hired her. "I was one of the first full-time women in video graphics and programming at Nutting," she says proudly. "They didn't quite know what to make of me."

Dave Nutting calls his female employees "girls" and believes they contribute a distinctly feminine touch to his company's games. "Women are better at creating the patterns, imagery, and atmosphere for games," explains the industry veteran. "They have more of a sense of feeling and color than men do. Games done by men work fine, but usually will look a bit stiff."

Says Hendricks about her experience at Nutting: "It's a good place to get started. You're allowed to drift around and find out what you're good at. It's like school."

Mary Ptak wouldn't mind enrolling at this "school." She recently left an engineering position at Honeywell to give birth to—and raise—her child. She'd like to join her husband, Tom, at "DNA University" (as Nutting's firm is affectionately called by his "students") in the near future. "When I was in college women weren't encouraged to go for math or engineering careers," Mary recalls. "I think it's changing, but I don't expect this to change that much. The numbers will probably just even out."

At Columbia University in New York, Joseph Traub reports that the enrollment of women is steadily climb-

The Myths of Pac-Man & Other Related Topics

Since most women were introduced to video games via Pac-Man, and since Pac-Man is so cute and cuddly, popular industry wisdom says that women only want to play so-called "cute" games. True or false? Let's just call it a myth. This and other myths surrounding female game-playing attitudes should be demolished once and for all.

Myth #1: Women play easier games than men.

Most female gamers are beginners, says Williams' Janice Hendricks. And what kind of game would a beginner naturally prefer? "Any game that has simple controls and is easy to understand," she says. "Games that take a lot of time and money to learn aren't instantly appealing to most beginners."

Kathy Novak, market research manager at Bally/Midway, thinks women's aversion for complex controls and complicated games will pass. "It's all due to indoctrination," she says, referring to Pac-Man. "It's easier to start with simpler games and then advance to more complex ones that require more strategy and offer a greater challenge."

Novak offers herself as an example. "I worked here for almost a year before I played any games at all," she admits. "They intimidated me, but not any more."

Myth #2: Women prefer simple controls.

According to the "brain dichotomy" theory, women have better reflexes, but don't think in the abstract as well as men do. Freelance game designer Tim Skelly suggests this may explain why women generally dislike spatial games such as Asteroids and Defender. "Those left, right, thrust, fire, multi-button flying-type games require an intuitive sense of what position your spaceship is in," he says. "You need to figure out how long you have to press a button to get where you want to go. The kinesthetic feedback you get is not nearly as direct as the kind you receive with a trackball or joystick." Centipede and Pac-Man, which employ a trackball and joystick respectively, "don't require spatial play," Skelly continues. "You don't have to visualize everything in your head."

Hendricks doesn't buy the brain dichotomy theory, contending: "It's conjecture. It's quite far from proven." Susan Forner, of Dave Nutting Associates, adds that "women are meticulous and can handle the most complex set of controls."

Myth #3: Women just like to look at pretty colors.

Dona Bailey paid plenty of attention to color when she was programming Centipede. "Graphics make a big difference, and color has a lot to do with it," she points out. Though she concedes that "color is especially important to women, I never heard any complaints from men about Centipede, except from a lot of guys at Atari."

Skelly, on the other hand, asserts that colors are of equal significance to both men and women.

Myth #4: Good girls play "cute" games.

"Most of the games I play men don't seem to like, but one we agree upon is Centipede. It's easy to learn, yet tough to master, and combines personality, humor, simple controls, and attractive graphics." Dona Bailey definitely knew what she was doing. Recently, Dona offered these comments about the game Robotron:

"I have an enormous amount of enjoyment playing it and while doing so it's challenged some of the things I'd been thinking about women and games. Since I like it so much, it's forced me to consider whether games really need some sort of peace-loving quality to them. Robotron is a shoot-'em-up, but it's not advocating violence or mindless slaughter. Robotron is funny without being a cartoon. I really respect that a lot."

Myth #5: Good girls don't play games at all.

"Women traditionally haven't participated in games," says Jewel Savadelis, software product manager in the consumer division at Atari. "It's just not something we were introduced to earlier in life."

This, of course, is changing. Hendricks cites her 12-year-old sister who took an eight-week computer class last summer. "If women are exposed to things at that age, the awkwardness will certainly disappear."

—*A.K.*

ing in the computer science department, which he chairs. While only four of the 32 students in the department's PhD program are women, Traub says the department is receiving more applications from women than ever before. At Barnard College, Columbia's sister school, the computer science department has grown to 50 majors in

ROBERTA WILLIAMS

"I think it will remain a male-dominated business."

three years of existence.

Linda Averett, who along with her husband, Ed, designs games for the Odyssey² system, estimates that "at least 50 percent of software graduates are now women." Her degree is in engineering physics; computer science was not offered at the school she attended.

The Averetts are responsible for games like K.C. Munchkin, K.C.'s Crazy Chase, and Pick Axe Pete. "We did K.C. Munchkin right after Pac-Man became so popular," she says. "We knew it was a game women would definitely like. Women are more analytical. I think that's why they don't like shoot-'em-ups." In a switch, Linda usually does the programming while Ed creates the graphics. They license games in the name of Averett & Associates.

Probably the most successful of the husband/wife teams now entering the business is Roberta and Ken Williams, co-founders of Sierra/On-line Software. Sierra had revenues of over $10 million in 1982, primarily on sales of game software produced for Apple computers. Roberta is a self-taught programmer who specializes in adventure games. Disappointed with the games available for the Apple, she created her own, Mystery House, and has since produced several bestsellers, including Zork, a 12-disc epic, and worked with Henson Associates on the computer game based on *Dark Crystal.*

Photo by Steve Kagan

SUSAN FORNER

"It's getting to the point where it doesn't matter whether you're a woman, but how many programming languages you know."

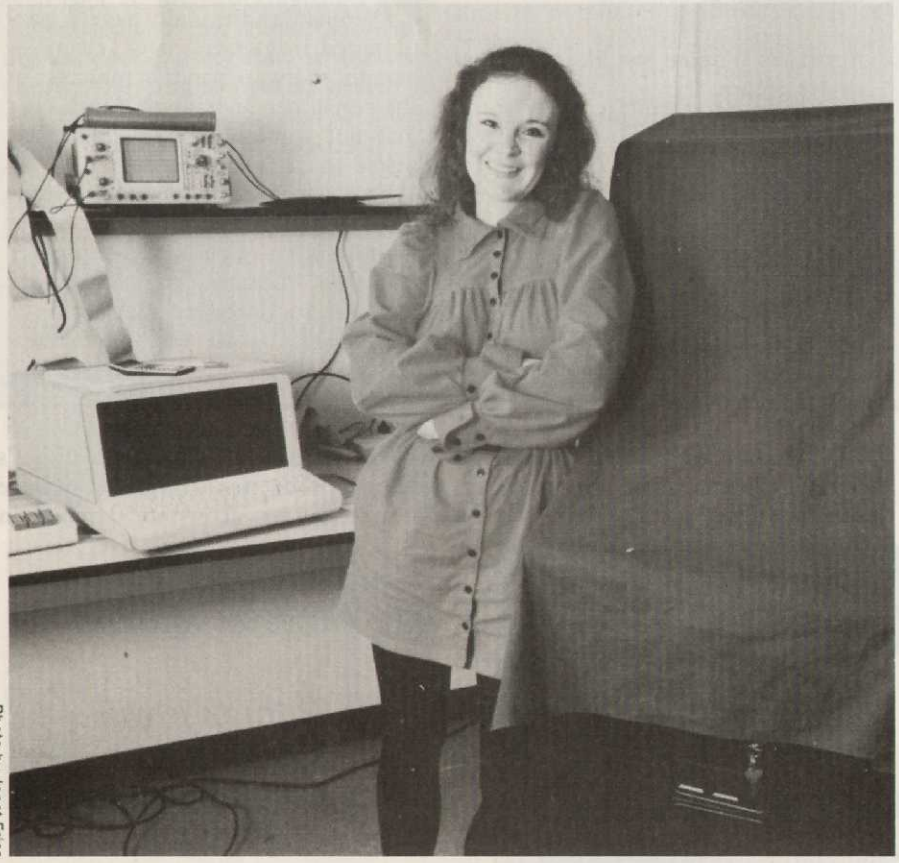


Photo by Janet Fries

DONA BAILEY

"Atari was always saying they were trying to hire women, but they said the percentage of women applying was low."

Roberta believes women are better than men at writing and verbal communication. Men, according to her, usually excel at math and logic. Writing an adventure game, she says, "is easier for women to do. It's like screenwriting."

Williams agrees that more women are "getting into all aspects of the business," though she doesn't see them coming in droves. Of Sierra's nearly 100 freelancers, only a handful are women. "I think it will remain a male-dominated business," she concludes.

Working in a male-dominated field can be a tremendous strain. Suffering from what she calls "fraternity burnout," Dona Bailey recently left Atari and joined Videa, a design firm founded by three ex-Atarians. Being the only woman in coin-op engineering slowly wore her down to the point where she had to quit.

"When I first started it wasn't so overwhelming," she says. "But as the department grew, it was like being on

(Continued on page 81)

SWEATY PALMS GUARANTEED! **5 EXCITING NEW GAMES!**

US GAMES NEWS

EARTH DOOMED?

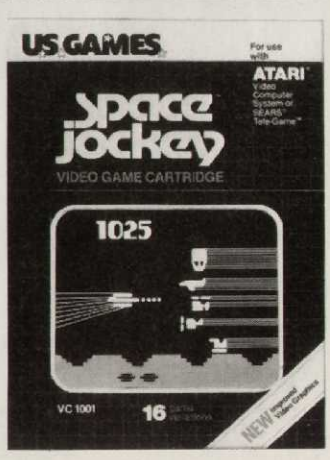
LONE SPACE JOCKEY FIGHTS BACK!

With every human attack weapon captured by alien forces and turned against Earth, surrender seemed inevitable... until you captured one of the alien attack saucers!

Screaming through the atmosphere, you cut forward and back, up and down to escape relentless alien firepower. You blast back, firing directable missiles into alien planes, tanks, and other obstacles.

Can you beat the aliens with their own machine? You can... if you're fast enough, if you're accurate enough, if you're good enough.

★ ★ ★



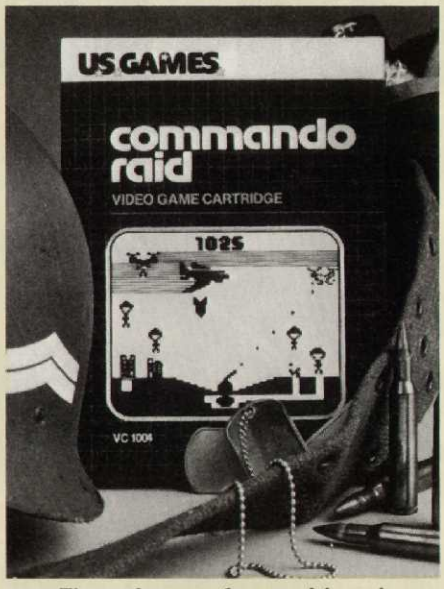
Can you beat the aliens at game level 16?

ANDROID RAIDERS ATTACK!

HOT GUNNER COULD SAVE CITY!

With attack choppers dropping android commandos and fighter-bombers delivering payload after payload, our city would be destroyed by now if it weren't for one brave gunner... you.

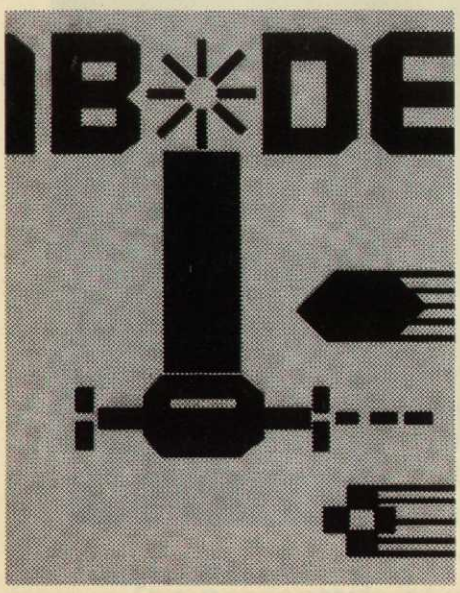
Only your quick eye and quicker trigger finger can hold off wave after wave of android parachutists. Only your skill can keep them from tunneling under the city and taking you out. The game is Commando Raid, and you're the city's last hope.



The action gets faster with each commando attack wave!

★★★

ZAPPER A FAST BLAST!



HOT GAME CHALLENGES THE BEST!

Just when you think you've thought fast enough, you've got to think faster! You've got to fire left and right to zap deadly asteroids... one hit by the Doomsday asteroid and your saucer blows!

But that's just defense! To win you've got to fire overhead with incredible skill to blast away the letters of the alien's language. And it will only work if you follow the computer's lead. Can you beat Word Zapper through all 24 games? Can anybody?

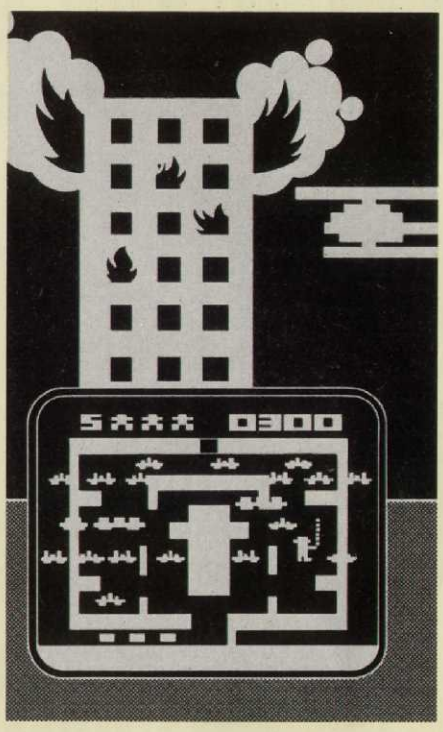
Why is Ronald Evans smiling? Did he beat the zapper?

FIERY DISASTER AVERTED!

BOLD FIREFIGHTER SAVES HUNDREDS!

It was the worst fire you'd ever seen... a high-rise going up like a torch. With a different fire-filled maze on every floor. And hundreds with no way out... unless you could get them out to the rescue chopper.

It's a race against time and the fury of fire that can destroy innocent occupants... and you! You're the firefighter... do you have the skill and strategy it takes to beat Towering Inferno?



Relive the movie in this challenging maze game!

★ ★ ★

MISSING PERSON MYSTERY SOLVED!

ENTIRE FAMILY CAUGHT UP IN SEARCH.

Four different rooms with lots of sneaky places to hide.

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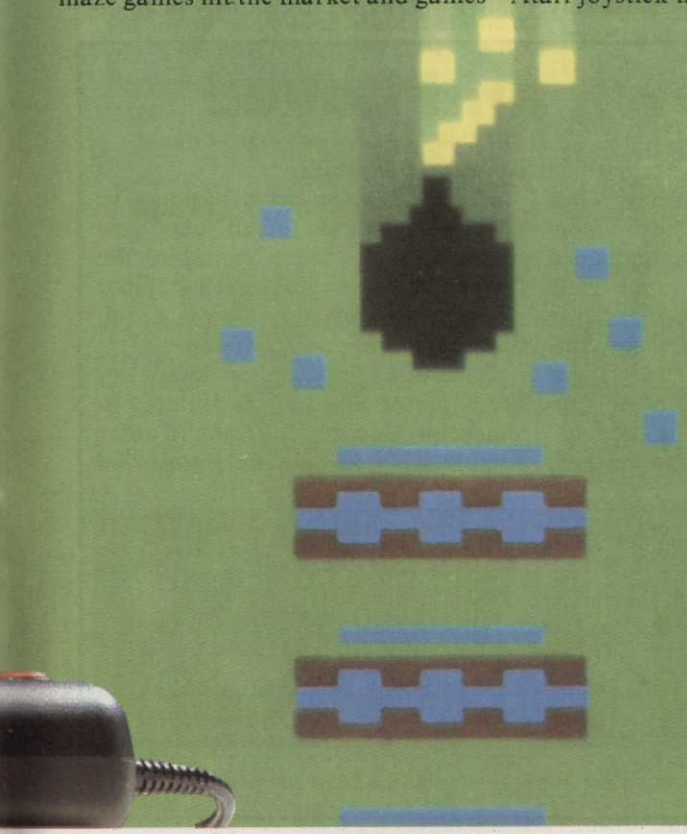
Photo by Michael Sullivan

114 RATING THE JOYSTICKS

By Perry Greenberg

Trackballs, button controllers and sticks of every shape and size are now available for TV-game play. With the right one, you can even increase your Pac-Man score.

In more primitive times—i.e. three years ago—you probably took your joystick for granted. To survive and conquer in early video games like Space Invaders, all you had to do was move an object along the bottom of the screen, and the Atari joystick was good enough to do it. But when Pac-Man and the rash of maze games hit the market and games like Berzerk were introduced, simple side-to-side movement no longer sufficed. To beat this more sophisticated generation of video games, you had to move up, down, sideways, and sometimes even on a slant. And you had to do it absolutely instantaneously. For the video game player, life became a lot more treacherous. Using the simple Atari joystick made as much sense as sending up a World War I fighter plane to battle the Israeli air force.



You needn't worry, though. A cottage industry is springing up to meet these new needs. About a dozen companies are betting you'll shell out between $13 and $100 for a controller to improve your game. Some of these new products are billed as replacements for the original Atari sticks. Others are not joysticks at all but button controllers and trackballs that plug into home video systems. One company—Cable Enterprises of Pittsburgh—is even promising to modernize your ol' Atari for $5.95 through the use of a heavier, longer base and a sponge rubber pop-on ball.

Of course, you shouldn't expect too much from these new products. Just as switching from a $30 Jack Kramer wood racquet to a $250 Tony Trabert graphite won't by itself vault you into the Wimbledon finals, a new joystick won't automatically transform you into a tournament champion. But a good joystick can improve your comfort, ease of movement, and, most important of all, alleviate fatigue.

This last point is crucial. When you're reaching for record scores, fatigue can be your toughest foe. Some of the newer sticks are far more comfortable to hold than Atari's contoured handle, which is slippery and tough to grip. A few have long, tapered handles

or finger-contoured pistol grips. Many provide one-hand control of both movement and firing by having the firing button on top of the handle. All this counts a great deal as you try to duplicate arcade glory in your home.

Among the best of these new products are the the Wico controllers—truly the Mercedes-Benz's of joysticks. Why? Wico decided to create for the home exact replicas of its arcade joysticks—a sure formula for success. Starting at $29.95, Wico's controllers look and feel great and play beautifully. They all have large sturdy bases and strong metal shafts. Each stick is equipped with two fire buttons, one on the base and one at the top of the shaft so the player has a choice between one- or two-handed operation. One reason for Wico's superior feel: Unlike the Atari sticks, which employ non-replaceable switches, Wico's can be replaced for a nominal fee, thus keeping your game playing fresh and brisk.

Wico's Red Ball

The Wico sticks come in two basic styles: The **Command Control** joystick ($29.95), which has a contoured baseball-bat type handle, and the **Red Ball** joystick ($34.95), a long metal shaft topped by a large, easily gripped red plastic ball—just like you find in the arcades. Will Wico sticks improve your scores? Well, I used them to play Pac-Man on the Atari 2600 and Donkey Kong on ColecoVision. In both cases, my scores rose slightly. More important, playing Donkey Kong was a lot more fun than usual.

Another standout is D-Zyne's **Super Stick** ($39.95)—one of the best of the new joysticks for emulating coin-op feel and movement. It has a short steel shaft topped by a large, hard black plastic ball that is slightly smaller than those found on arcade consoles. It has a nice, smooth throw and is very responsive—my Pac-Man score improved when I used this stick. But there is a problem: The base is just too big to be held comfortably. I'm told D-Zyne is redesigning the stick with a smaller, more attractive base. I just hope the company doesn't make any changes on the stick. It doesn't need any.

D-Zyne Super Stick

Photos by R.P. Sefcik

Gamers familiar with Astrocade's much acclaimed pistol-grip controllers will experience deja vu when they try Zircon's **Video Command** stick ($19.95). Its sleek design might at first confuse you; in fact, it looks like a hand-held bicycle pump. But upon inspection, you'll see a five-inch shaft, which you grab with a fist, and a red fire button, which you press with the same hand, trigger-style. At the very top is a triangularly-shaped knob that shifts—perhaps too readily—in all di-

Buttons I Have Known and Loved

It seems as if every new game has a joystick and a button with a strange name. I'm not complaining. I just noticed that button names are getting weirder by the minute!

Most people can figure out which buttons are for one- and two-player games, and everyone is familiar with "shoot" buttons by now. But talk about reverse, hyperspace, smart bomb, thrust, and fire buttons and some people might think you're talking about an orgy instead of Defender. If you've been around the arcade scene, then you've pushed buttons that pump, jump, punch, kick, knife, flap, flash, spray, zap, and swat, and you recognize them from games like Dig Dug, Donkey Kong, Kangaroo, Kick-Man, Jungle Hunt, Joust, Tutankham, Wiping, Monster Bash, and Domino Man. One of my all-time favorites was the "dog" button from Mouse Trap, which also featured "door" buttons. Then there was the "dig-hole" button from Space Panic, which was accompanied by a "fill-hole" button. Some truly bizarre buttons I've pushed recently were the "retract tongue" from Anteater, the "make a brick" from ZZYZZYXX, and the "throw grenades" from Frontline. The "pepper" button on Burger-Time also deserves some kind of award.

People love to push buttons, so we're bound to see lots of funny new buttons on the video games of the future. Maybe we'll see even stupider buttons like stomp, spit, spill, drool, flip, flush, drop, pop, or fwop.

Of course, the dumbest idea ever, the Ultimate Button, was featured in Blueprint. You push a button in order to push a button. —*John Holmstrom*

Photo by Perry Greenberg

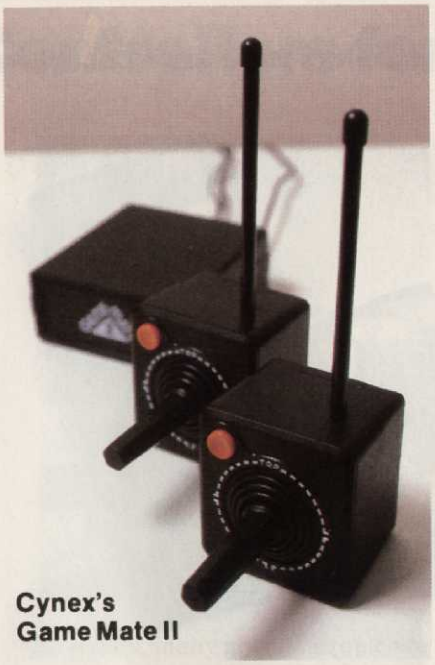
Thrust, fire, laser, rotate—some people might think you're talking about an orgy.

rections. The Video Command is at its best when asked to perform simpler tasks, such as negotiating the open spaces of Berzerk; it just doesn't take the narrower passageways and sharp turns in Pac-Man very well. For gamers who are looking for comfort and have a light touch, this stick is for you.

If you're short on cash, though, you might want to check out Spectravision's **Quik-Shot**—an attractive joystick at a terrific price ($13.95). This stick's contoured handle feels great. Unlike Wico's controls, its two fire buttons are active simultaneously so you don't have to flick a switch to move from one to the other. It also has a feature that makes one-hand control especially easy: Its base has removable suction cups that hold it tight onto any smooth surface. There's one other unique feature: When the stick moves, it produces a clicking noise that gives the player some indication of his position by sound. Quik-Shot does have one drawback: It is not nearly as good at imitating the smooth, silky feel of the arcade sticks. But, then again, the price is right and the play is fine.

At the other end of the price spectrum is the **Game Mate II.** At $100 a pair you bring home a true joy—a wireless joystick! (Look Ma, no cords.) You can sit 20 feet away from the receiving unit and not worry about people tripping over ugly wires while you're in the middle of a game. For this feature alone, Game Mate II is one of my favorite replacement sticks—even though it plays and feels exactly like Atari's.

Meanwhile, one record industry-related company—Discwasher—has decided to fight fire with fire. It has produced an effective, inexpensive ($12.95, plus a $2 rebate) joystick, called the **Point Master,** containing a comfortable, bar-like button on top of the handle for one-hand use. Unfortunately, the base has no grips and can be particularly painful on your left thumb, which tends to rub up against the sharp plastic ridge that borders a recessed, circular well where the lever is connected. A redesign would make Discwasher's joystick an excellent buy.



Cynex's Game Mate II

Now for some of the losers. In the hype and overkill department, Suncom takes the prize. It calls its new **Starfighter** control ($16.95) the ultimate joystick. In reality, it's the least comfortable of the bunch—a real stick-in-the-mud. Its square-shaped base has no grips on the bottom, so you must hold it with one hand while manipulating the stick with the other. The base is not easy to grip either—at least it wasn't for me. The stick itself is a short cigar-shaped lever that I found extremely uncomfortable to hold. The stick does employ very short, stiff throws that, for the most part, move objects very responsively. But this doesn't make up for the discomfort.

Suncom has also introduced **Slik Stik**, a cheaper version of Starfighter that sells for $9.95 and employs a thinner lever with a small red ball on top. But believe me, Slik Stik is no improvement over its more expensive cousin.

Another disappointment is a $29.95 control put out by G.A.M.E.S., the huge California-based mail-order house. **Super Joystick,** one of the first to hit the market, is unattractive and uncomfortable and can't compete with some of the newer models that cost half as much. The black plastic ball on top of a steel shaft is too small to be easily gripped, and the stick's large, cube-shaped, black base is tough to hold. For the price, it lacks important features—no base grip and only one tiny fire button at the left corner of the stick. Since it has a year's warranty, it may have lasting power. But take my advice: Look elsewhere for a replacement stick.

Using joysticks, of course, is not the only way to play video games, though for maze games they are definitely the way to go. In some shoot-'em-ups, a button controller can be more effective. The Starplex **Video Game Controller** ($29.95) is an attractive, five-button console that has a feature not available on any of the joysticks—an astroblast switch that provides rapid-fire. I found the VGC helpful in avoiding fatigue, especially in games where you move your shooter along a horizontal plane. It's a real plus, for example, in Atlantis. Instead of having to jerk the joystick and hold it in an uncomfortable position when switching anti-aircraft guns, you can switch much faster with the touch of a button. Now, when you employ the astroblast, those evil Gorgans really don't stand a chance. In fact, my score went up an average of 10,000 points wth the VGC. Take that, Gorgans!

Discwasher's Point Master

KY Enterprises of Long Beach, Ca. produces the **Fingertip Controller** ($19.95), a much less attractive fire button console with no astroblast.

Zircon's Video Command

KY's Fingertip Controller

Starplex's Video Game Controller

Suncom's Starfighter

Four buttons are placed in a diamond-shaped configuration on the right-hand side of the brick-like black box; a red fire button is situated in the top left corner. Unlike the VGC, this system is designed for one-handed use except for firing. I suppose a piano virtuoso might adore the Fingertip Controller, but for me it would take an awful lot of practice to achieve success in any game that involved more than just moving a shooter from side to side. However, the KY controller does provide eight-way movement when two buttons are pushed simultaneously.

One major criticism of these button controllers: Even if you are a button-pushing wiz, some of these controllers can only give you four-way directional movement while every joystick provides at least eight-way movement. Games that require a great deal of multiposition movement, such as Berzerk and Star Voyager, just won't play right with button controllers.

Using a trackball is another option. The one and only presently on the market is manufactured by Wico (who else?)—a home version of the company's terrific trackball that is partly responsible for the great success of Centipede. If you love Centipede and have an Atari 400 or 800 computer, the Wico trackball is a must—even at the steep price of $69.95. Other games that work well with the trackball are Missile Command, Empire Strikes Back, Demon Attack and Threshold. One important note: Maze games do not play well with a trackball.

What kind of controls are we likely to see in the future? Ed Black, one of Wico's top engineers, says that as games become more diverse, a wider selection of joysticks will be needed. The day may come soon when each game will come with its own controller. This is already happening—the chief example being Atari's Star Raiders, which is equipped with its own button console.

Whatever happens, one thing is certain: The days when you took your joystick for granted are over. ▲

G.A.M.E.S.'s Super Joystick

Spectravision's Quick Shot

Wico's Trackball

KY Designs Controllers for the Disabled

Ken Yankelevitz cares so much about people he's designed a line of game controllers for the handicapped. A flight systems engineer at McDonnell Douglas in Long Beach, Calif., Yankelevitz sells the controllers at cost under the name KY Enterprises.

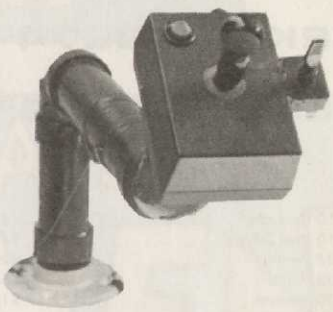
Models 103 and 104, for instance, are specifically for quadriplegics. Both come with a joystick, "puff" switches for firing, game select and reset, and tubing that must be connected to the Atari VCS in order for this mouth-operated device to work correctly. KY will either send you wiring instructions or make the modification free of charge as long as you mail in the unit.

It was former Olympic volleyball player Kirk Kilgour who got Yankelevitz started. Paralyzed from the waist down after suffering a spinal cord injury, Kilgour asked if McDonnell's hospital engineering department could devise a mechanism that would allow him to play his VCS. Unable to do so, the department forwarded the project to Yankelevitz. Four months later, Kilgour was playing games again, thanks to the mouth-operated controller. More recently, Yankelevitz donated or loaned over 100 controllers to individuals and institutions in Southern California.

"Bless Ken's heart," says Mickey Christianson, a therapist at Rancho Los Amigos Hospital in Long Beach. "He comes here on weekends and at night to help our patients. His controllers give our paralyzed patients a chance to do some of the things other children can do."

Says Yankelevitz: "Kids who have spinal cord injuries not only suffer acute depression, but become very withdrawn. Video games bring them out of their shells and are used as an incentive to get them to cooperate with therapists. Also, when a child suffers a catastrophic injury, friends and family find it difficult to relate to him, but with the controllers they can now compete on an equal level. This breaks down a lot of the barriers."

Another KY design is a button controller for arthritis and cerebral palsy victims that requires a very soft touch. "I originally designed it for those people whose illnesses make quick wrist response with joysticks impossible," Yankelevitz explains.



Yankelevitz assists handicapped child with mouth-operated controller (shown above).

"Ironically, many normal people are using these controllers (Models 101 and 102) because of the quick release you get over a joystick. In fact, for games like Donkey Kong it's much easier to position yourself under the ladders. With joysticks, there's a tendency to overshoot the ladders."

Yankelevitz feels that modified game controllers are just the first step in bringing the handicapped closer to computers. "When a quadriplegic masters the use of the mouth controller he can learn how to use a computer. This will eventually open up a whole new world for the quadriplegic," he says.

For more information write: KY Enterprises, 3039 E. 2 St., Long Beach, Calif. 90803. —*P.G.*

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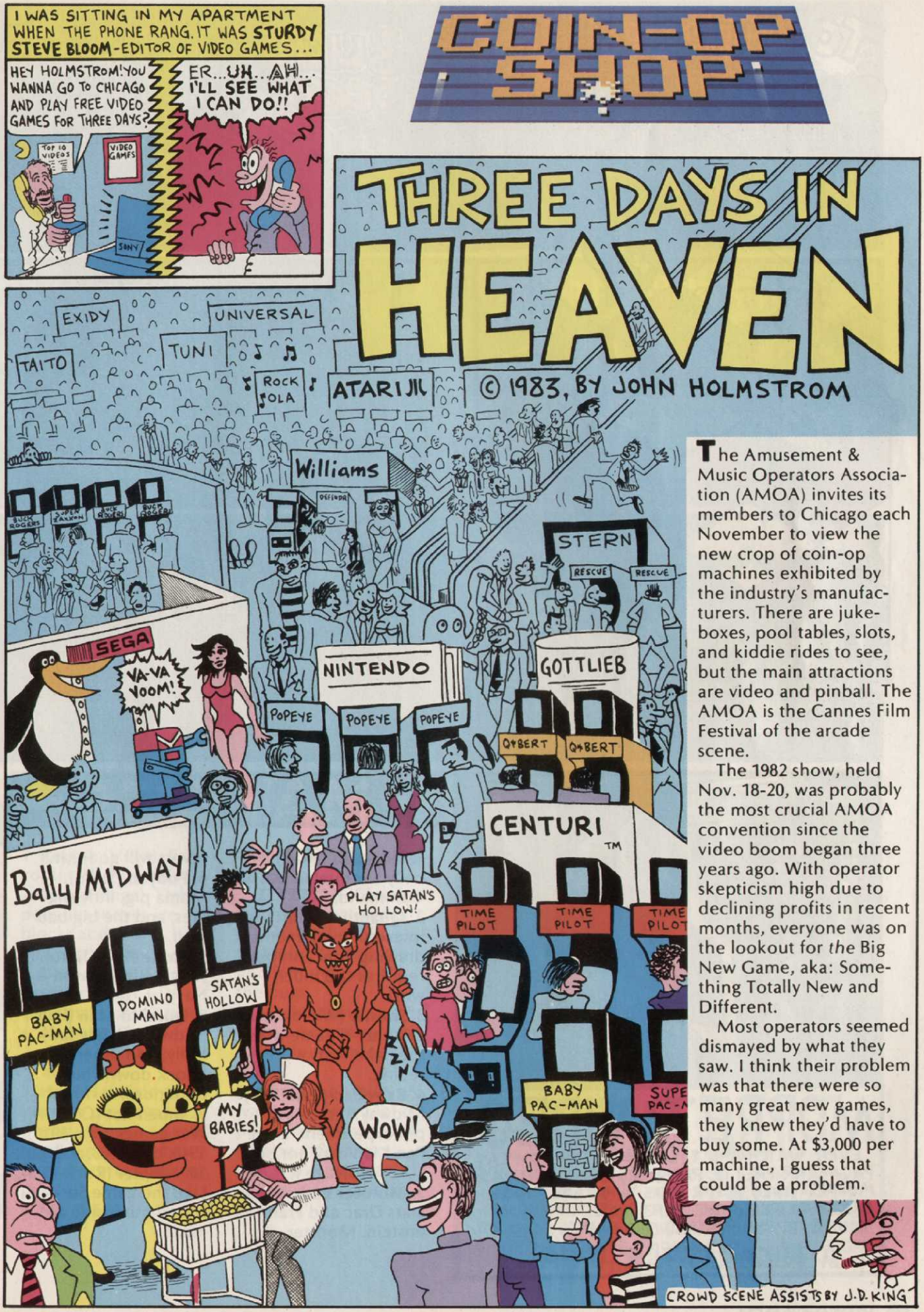


The Amusement & Music Operators Association (AMOA) invites its members to Chicago each November to view the new crop of coin-op machines exhibited by the industry's manufacturers. There are jukeboxes, pool tables, slots, and kiddie rides to see, but the main attractions are video and pinball. The AMOA is the Cannes Film Festival of the arcade scene.

The 1982 show, held Nov. 18-20, was probably the most crucial AMOA convention since the video boom began three years ago. With operator skepticism high due to declining profits in recent months, everyone was on the lookout for *the* Big New Game, aka: Something Totally New and Different.

Most operators seemed dismayed by what they saw. I think their problem was that there were so many great new games, they knew they'd have to buy some. At $3,000 per machine, I guess that could be a problem.

TOP TEN HITS

1 Q*bert

©GOTTLIEB

The most unusual and exciting game at the show. The concept of jumping around the pyramid of cubes is simple but challenging. No operator dared to walk away without buying at least one.

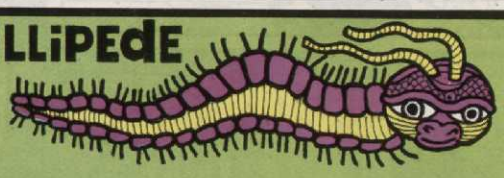
2 BUCK ROGERS

©SEGA

A gorgeous, rolling 3-D game that deserves the moniker "Space Turbo." The high-quality graphics, fast and furious action, and Buck Rogers shtick should find a home with video space jockeys. Say goodbye to Galaga—shoot-'em-ups will be 3-D from now on. That's a promise!

3 POPEYE

5 MILLIPEDE



©ATARI

The best of the sequel games. The same basic idea as the original with a whole new cast of bugs, including dragonflies, mosquitos, beetles, inchworms, and bees. Best new gimmick: the DDT bomb. Hit one of those suckers, and you really kill those bugs dead!

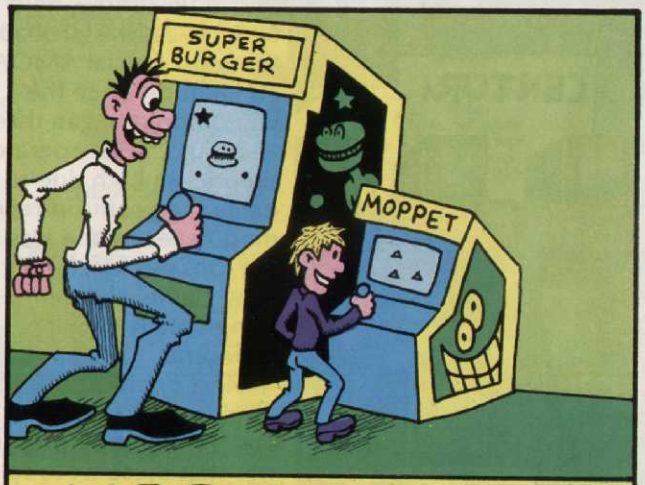
6

8 PAC MAN PLUS

©BALLY/MIDWAY

Converts old, boring Pac-Man cabinets into a more exciting and difficult game. It's the original maze with new color schemes. The menu features cokes, martinis, peas, grapes, and other strange stuff instead of fruits and keys. Not all of the ghosts turn blue once a power pill is eaten; sometimes they become invisible, and sometimes the maze goes blank.

9 PINBALL



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—MAYBES—

1. **Liberator** (Atari). Finally a sequel to Missile Command.
2. **Quantum** (Atari). An interesting geometric drawing concept, but requires too much work
3. **Sinistar** (Williams). Bizarre sci-fi game with special effects worth seeing.
4. **Baby Pac-Man** (Bally/Midway). Lousy vidipin experiment. Even Pac-Man may not be able to salvage it.
5. **Monster Bash** (Sega). Stars Drac and Frankenstein. Monster-lovers will go for it.
6. **Pooyan** (Stern). Mama pig, little piggies, and the big bad wolf.
7. **Pirate Pete** (Taito). Jungle King joins the Navy.
8. **Domino Man** (Bally/Midway). A bag lady, a bully, and others try to knock down your dominoes.
9. **Time Pilot** (Centuri). War games circa 1910, 1940, 1970, 1983, and 2001.
10. **Nibbler** (Rock-Ola). Like the game Surround but inside a maze.

? ? ? ? ? ?

How can you go wrong with a game starring Popeye, Olive Oyl, and Brutus, and with guest appearances by Wimpy, Swee' Pea, and the Sea Hag? The story is told in three screens. Popeye catches hearts, musical notes, and H.E.L.P. letters that Olive tosses down. Popeye even eats spinach and beats up Brutus for 3000 points!

4

BurgerTime

© BALLY / MIDWAY

The stupidest, silliest game ever, and that's why you couldn't get people off the Burger Time games with a crowbar! The music, challenging mazes, and comical characters combine to create a game that the public will be hungry for. You, the chef, drop burger parts to the bottom, as three dancing weenies and an egg chase you around. Can't miss—Burger Time's rare 'n' to go!

SUPER PAC MAN

© BALLY/MIDWAY

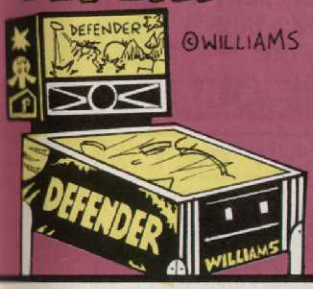
Strange, but true. Pac-Man gobbles keys to open different parts of the maze, and eats burgers, donuts, apples, bananas, and so on. Two power dots turn him into Super Pac, a behemoth who can go anywhere on the board untouched. A good sequel game that asks: Is there life after Ms. Pac-Man?

7

POLE POSITION

Turbo Deluxe, if you will. Only difference is this is a speedway, not a cross-country race. The ultimate test of driving skill for only the very best video game roadsters.

DEFENDER



The best pin game in a long time. The sounds are straight from Defender video, and they're good and loud, thanks to a big mutha speaker built into the back cabinet. There's plenty to shoot at, great flipper action and there are even smart bombs!

10

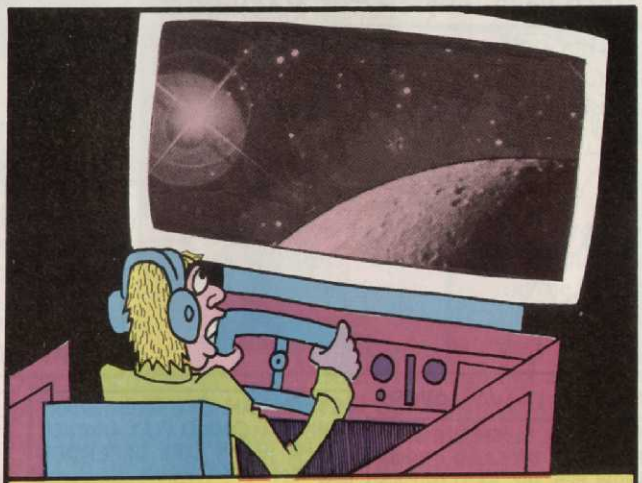
SUPER ZAXXON

©SEGA

Souped-up Zaxxon for everyone who thought the original was too slow. Has more action, cleaner and sharper graphics, and a tunnel (instead of boring space) to enter after your ship leaves the Zaxxon base. About twice as fast as Zaxxon. Plus, it plugs right into old Zaxxon cabinets!

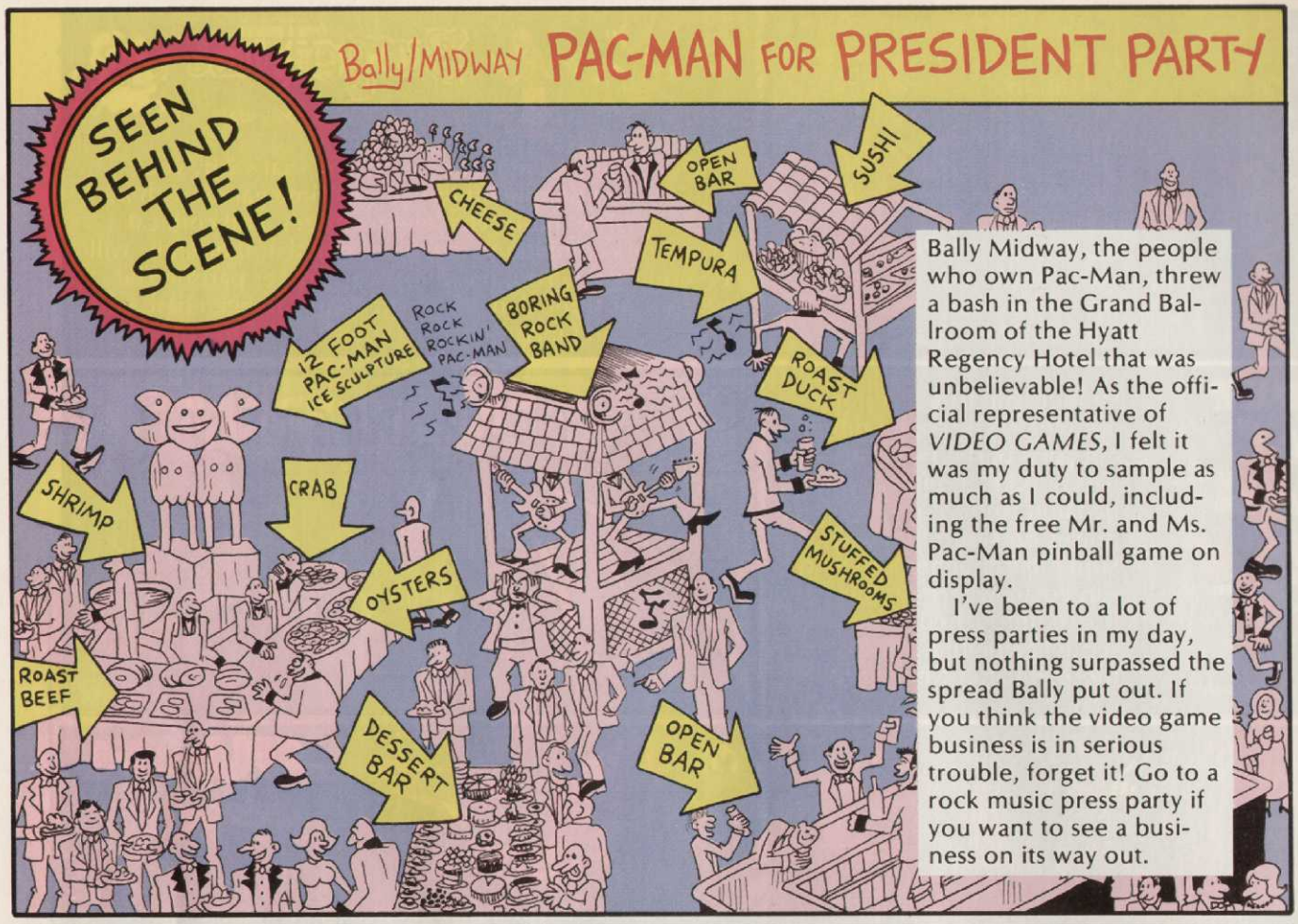
—MISSES—

1. **Rescue** (Stern). Bad copter/shark game.
2. **Pengo** (Sega). Ugly penguin shoves ice blocks at dumb-looking sno-bees.
3. **Dark Planet** (Stern). Asteroids with 3-D slant that doesn't work.
4. **Anteater** (Tago). Aardvark eats bugs out of an anthill.
5. **Hard Hat** (Exidy). Want to play a game whose object is to spell out the name of the manufacturer? Not me, pal.
6. **Mr. F. Lea** (Pacific Novelty). Pointless bug game.
7. **ZZYZZYXX** (Cinematronics). Great name, but that's about it.
8. **Wiping** (Nichibitsu). Vacuum the rug, kill the bugs.
9. **Macho Mouse** (Tuni). Another great name, but where's the game?
10. **Frontline** (Taito). A war game with a lot of potential, but also with a firing mechanism that's so difficult to maneuver it ruins the game.

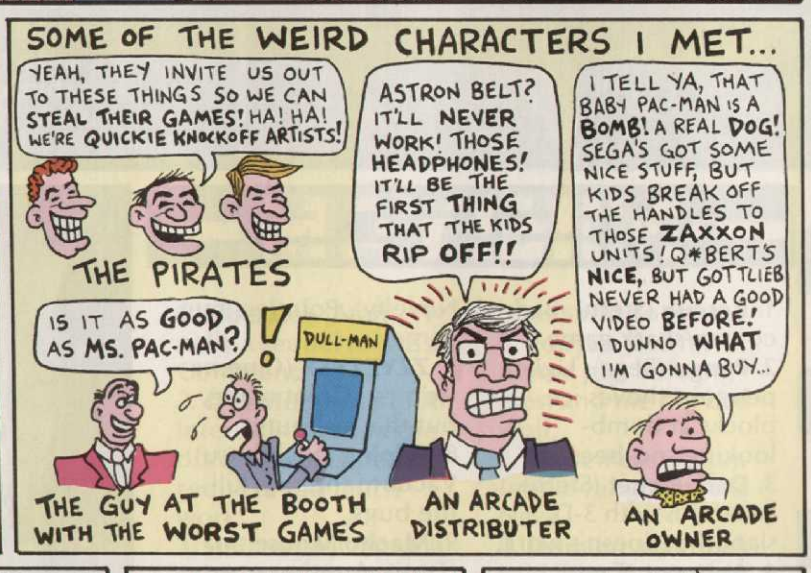


ASTRON BELT

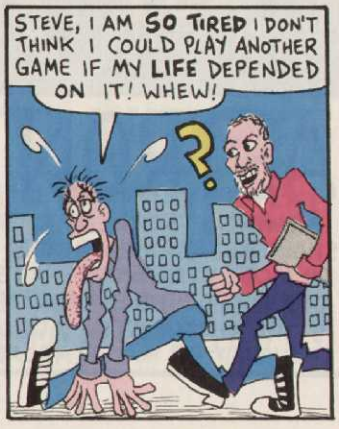
A LARGE SCREEN SCIENCE FICTION SPACE SHOOTING GAME THAT'S PLAYED AGAINST **FILM FOOTAGE** OF SPACESHIPS, PLANETS, AND EXPLOSIONS! FOR **MANY** PLAYERS, THIS IS THE **ULTIMATE** VIDEO GAME! FROM SEGA. IT SHOULD BE IN THE ARCADES WITHIN THE YEAR!


SEEN BEHIND THE SCENE!
Bally/MIDWAY PAC-MAN FOR PRESIDENT PARTY
CHEESE
OPEN BAR
SUSHI
TEMPURA
12 FOOT PAC-MAN ICE SCULPTURE
ROCK ROCK ROCKIN' PAC-MAN
BORING ROCK BAND
ROAST DUCK
SHRIMP
CRAB
OYSTERS
STUFFED MUSHROOMS
ROAST BEEF
DESSERT BAR
OPEN BAR
Bally Midway, the people who own Pac-Man, threw a bash in the Grand Ballroom of the Hyatt Regency Hotel that was unbelievable! As the official representative of VIDEO GAMES, I felt it was my duty to sample as much as I could, including the free Mr. and Ms. Pac-Man pinball game on display.
I've been to a lot of press parties in my day, but nothing surpassed the spread Bally put out. If you think the video game business is in serious trouble, forget it! Go to a rock music press party if you want to see a business on its way out.

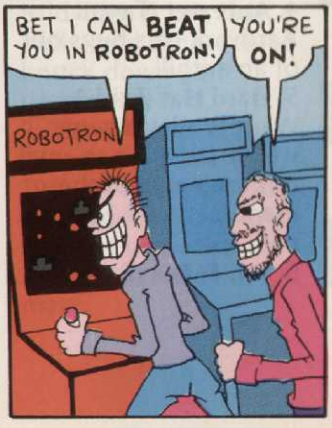
GIRLS! GIRLS! GIRLS!
MOST OF THE GAME MANUFACTURERS HIRE BEAUTIFUL MODELS TO SHOW OFF THE GAMES- BUT THEY WERE SO SEXY IT WAS HARD TO KEEP YOUR MIND ON THE MACHINES!
SINISTAR
SINIST


SOME OF THE WEIRD CHARACTERS I MET...
YEAH, THEY INVITE US OUT TO THESE THINGS SO WE CAN STEAL THEIR GAMES! HA! HA! WE'RE QUICKIE KNOCKOFF ARTISTS!
THE PIRATES
ASTRON BELT? IT'LL NEVER WORK! THOSE HEADPHONES! IT'LL BE THE FIRST THING THAT THE KIDS RIP OFF!!
I TELL YA, THAT BABY PAC-MAN IS A BOMB! A REAL DOG! SEGA'S GOT SOME NICE STUFF, BUT KIDS BREAK OFF THE HANDLES TO THOSE ZAXXON UNITS! Q*BERT'S NICE, BUT GOTTLIEB NEVER HAD A GOOD VIDEO BEFORE! I DUNNO WHAT I'M GONNA BUY...
IS IT AS GOOD AS MS. PAC-MAN?
DULL-MAN
THE GUY AT THE BOOTH WITH THE WORST GAMES
AN ARCADE DISTRIBUTER
AN ARCADE OWNER

SUDDENLY... IT WAS OVER!
STURDY STEVE BLOOM ARRIVED ON THE LAST DAY AND I TRIED TO SHOW HIM THE BEST GAMES!
C'MON, YOU! SHOW'S OVER!
JUST ONE MORE!
Q*BERT


STEVE, I AM SO TIRED I DON'T THINK I COULD PLAY ANOTHER GAME IF MY LIFE DEPENDED ON IT! WHEW!

HEY, LOOK! A VIDEO ARCADE!
HUH? WHAT?


BET I CAN BEAT YOU IN ROBOTRON!
YOU'RE ON!
ROBOTRON

SOFT SPOT

New Games From Well-Known Names

By Phil Wiswell

There's no need to tell you that the TV-game business is buzzing these days. Everyone from Parker Brothers to Quaker Oats is scrambling for a piece of the silicon pie. Even if I wanted to, I couldn't review all the new games that arrived in the mail this past month—unless, of course, the editor offered me the whole issue to do so. (He refused.) Consequently, I am limiting this month's column to new cartridges that were either licensed or spun off from another product.

Silver Screeners

One trend this year has been the creation of video games based on popular film titles. Witness Tron and The Empire Strikes Back. Add to the list two new Atari releases—E.T. and Raiders of the Lost Ark.

E.T. offers an unusual twist: This time *you* play the part of the alien. The action follows the plot of the movie: E.T. (you) has to assemble the parts of a phone designed for intergalactic calls. As you move through the six different scenes, be careful not to fall into the wells—getting out will cost you energy—so try to memorize the order in which the four horizontal scenes appear. Going north out of any well places you in the forest (which is where the spaceship abandons E.T. to begin the game and where you must meet the spaceship to take E.T. home). Going south out of any well lands you in a scene showing three buildings—the F.B.I., the hospital, and Eliot's house.

Each scene contains several different zones, represented by a symbol at the top center of the screen when you are in one. For example, in a "find phone" zone, one of three pieces of the telephone can be found simply by activating E.T.'s power (press the controller button). While in the "send back" zone, E.T. can drive away the doctor who tries to take you away for observation (costing you time) and the F.B.I. man who tries to steal pieces of your phone. The "call Eliot" zone lets you do just that. E.T.'s best pal comes out and retrieves candy pieces you have picked up in the wells, frightens away enemies, finds missing parts of the phone, and then returns to his house and stores your bonus points.

As you move from one scene to another, you'll need to memorize where

Atari's E.T. game has every kind of zone, including one to phone home.

the important zones are in each. And make sure you know the location of the landing site. Once you have all three pieces of the phone and find the "phone home" zone, you have only about 15 seconds to get to the landing site before the spaceship takes off, leaving E.T. behind.

E.T. is really for kids (the littler ones). **Raiders,** on the other hand, is a more complex adventure game. Since Atari omitted some of the rules in the instruction book, be prepared to do some quick thinking to solve this game.

The object of Raiders is, of course, to find the lost ark, which is hidden beneath one of 18 mesas in the mesa field. But you don't just go there and look around. Many tasks inside the 13 different rooms must be performed first, such as gathering the dozen objects you'll need to recover the ark.

Some rooms are connected by doors or obvious passages, but many times you'll think you've reached a dead end only to pass into another room—either by standing in the right spot or by using certain magical items. This is where Raiders gets tough. You are told that the Black Sheik in the marketplace will take you to the Black Market if you bribe him with the right object, but you are not told which object to offer, nor exactly how to bribe him. You're left with one choice: experiment.

By all means, don't be afraid to try off-the-wall tactics. For example, to enter the temple of the ancients you must create a doorway. What better way to make a doorway than blow open a hole with a grenade? It ain't in the rule book, but who cares?

Intellivision Converts

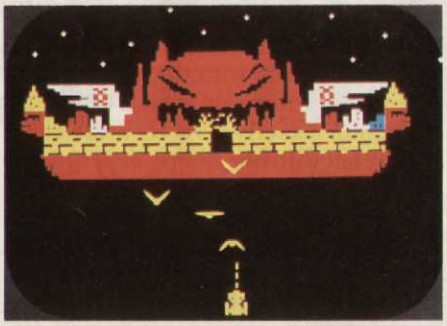
Only recently have software manufacturers begun releasing games for use with Intellivision, and the first four come from Imagic and Activision: Demon Attack, Atlantis, Stampede, and Pitfall. These games are already considered among the best cartridges designed for the VCS. Let's try 'em on for size on Intellivision.

Demon Attack is Imagic's best-selling cartridge to date. As in the original, you control a horizontally moveable laser cannon. Stationed on a planet's surface, it moves horizontally and can fire straight or steerable missiles at the oncoming winged warriors, depending on the game variation you select. Keep moving at all times, stopping briefly to fire at your targets. (You can use automatic fire, but you'll

do better firing on your own.) But don't get caught near an edge of the screen—always base yourself near the center.

After destroying eight lines of five bombers each in the third wave, your laser cannon takes off into space and comes to rest just below the demon base, which is one of the nicest graphics ever produced for a TV-game. Out of the base pour suicide patrollers that look like little seagulls. Eat away enough of the bottom of the base with rapid-fire, and you get to take a shot at the window of vulnerability when it passes directly over center screen. Don't worry about killing patrollers—they aren't worth it. Just go for the base itself. And be prepared for a wonderful full-screen explosion when you finally do hit it where it hurts. Then it's back to the planet's surface for more battles, only this time the birds not only drop laser bombs but explosives that mushroom when they reach the ground.

Other than advanced speed variations, my favorite in this Demon Attack are the two-player games that allow you to alternate control of the laser base, which changes color every

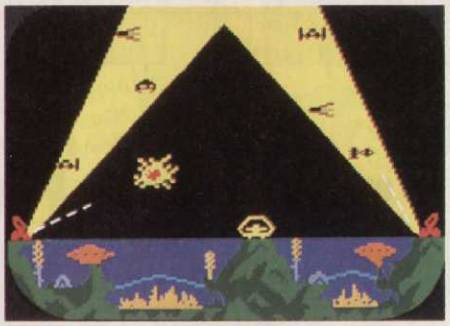


The demon base in Imagic's made-for-Intellivision Demon Attack is one of the nicest TV-game graphics ever.

four seconds. Each player goes for an individual score and can try to put the laser cannon in poor position just before it changes color. While the VCS version is a very good TV-game, this one is even better.

Imagic has also added new details to **Atlantis.** For example, the twin buttons on Intellivision's hand controller permit two shots on screen at a time, so one can be heading on the long diagonal in one direction while the other zooms in on the target at a sharp angle from the other side of the screen.

It takes a while to get the hang of Atlantis. And there are lots of surprises. At one point, dusk sets in, and the background turns grey. Then black! It's nighttime in Atlantis, and now you must seize the brief moments when the searchlights are shining to shoot down enemy planes before they reach the lowest altitude on the screen and begin destroying the city. If you make it all the way through, which won't happen on your first try, I assure you, the whole scenario begins anew at a more difficult level. The object,

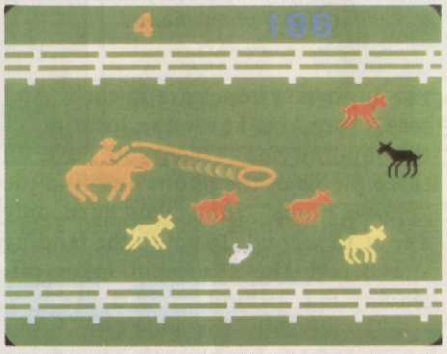


Nighttime in Imagic's Atlantis will take you by surprise. A great shoot-'em-up for Intellivision.

therefore, is not only to score points, but to see how many days you can stay alive. A great shoot-'em-up for Intellivision.

There's no doubt that Activision's **Stampede** is a good game on the VCS, even though it's tough riding herd on six lanes of cows while avoiding skulls, roping in the black angus, and not letting three cows get past your horse. You might expect, as I did, that the Intellivision version of Stampede would be even harder. It isn't. There are only four lanes of cows to herd and rope, which makes for longer games and higher scores. Not that it's easy—just easier. You might also expect better graphics on Intellivision. Not so. The graphics are identical.

You employ the same strategy for Stampede on Intellivision as you would on the VCS. What you should know is how the lanes cycle. Rope in a light cow, and a medium one will appear in



You'd expect the Intellivision version of Activision's Stampede to be tougher than the original. It isn't.

the same lane. Rope in a medium cow and a dark one will appear. Roping the dark one produces either a skull to avoid or a black angus to rope for bonus points. The key, however, is in knowing that the skulls and anguses alternate throughout the game. (Unless you let a cow get past you, so ride herd tightly.) If the first dark cow you rope produces a skull, the next will produce an angus, and so on.

Got that? Ok. Now, the first thing to do is get a dark cow in each lane. Herd the bottom three ahead by touching them with your horse and then rope in the dark cow in the top lane. There will now be two light doggies in that lane. Rope them, and you'll see two medium ones .... When you master this strategy, try putting the top two lanes through their cycles simultaneously while herding the bottom two.

I'm not going to say much about Activision's **Pitfall** for Intellivision because it's the same game in every respect as the VCS cartridge. It's the same nice adventure that takes you through 255 different jungle scenes, features different obstacles, such as disappearing bogs, snakes, scorpions, and rolling logs, and requires you to find 32 scattered treasures. Underground passageways work as either shortcuts or dead ends, so you've got to memorize where each ladder leads. But why aren't there any new tricks or details in this Pitfall? We all know you can do more with graphics on Intellivision than on the VCS. So why no improvement in Pitfall?

Arcade Converts

Ever since Atari licensed Space Invaders for home play, game manufacturers have been lining up for the most popular coin-ops. So far, Coleco has done very well with such arcade translations for ColecoVision as Lady Bug, Donkey Kong and Cosmic Avenger. But Coleco's coup for this new system has to be **Zaxxon.** As a pilot, you fly across alien asteroid fortresses battling a myriad of enemies. Push forward on the joystick to dive, and pull back to climb. Since this is exactly the opposite of what you do in most flying video games, it takes some time to get adjusted.

Navigation is half the battle in Zaxxon. You not only have to line yourself up with an approaching target, you must be on the same altitude as it. You can either use the altitude indicator or the shadow of your plane (a nice touch) to guide you. When you approach an obstacle, use your laser fire as a crude sort of radar. If the fire makes it over a wall, so will your ship.

Since you can't control the speed of your jet, you take on enemies in the order that they appear on screen. When

you pass over the wall at the end of the first asteroid, be prepared to take on an airborne jet that will try to ram you. This is the squadron leader, and it's worth plenty of points, so go for it. After it passes, you will have to fight off a squadron of planes in deep space. The screen is black, and you have no idea where to position yourself. Stay about three-quarters of the way up on the left side of the screen and wait for them to home in on your position. Fire immediately when you see the cross hairs appear at the nose of your ship—that's your only target indicator. If you fire immediately your shot will be on target. Then move slightly down and to the right to avoid that jet's missile, and move back when it passes. From this position you should be able to clear out the whole squadron.

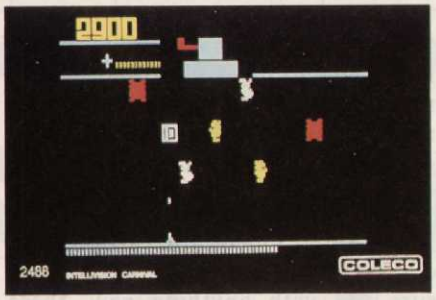
When things get quiet, look out for Zaxxon, the mighty robot. He appears on a second asteroid. Zaxxon can move farther to the left on screen than your ship, so try to draw him to the other side before firing. Aim first for the objects on his "shoulders," then try

Navigation is half the battle in Coleco's Zaxxon. If your fire makes it over the wall, so will you.

to deliver a series of shots to his gut. The trick to killing Zaxxon (who's worth 5,000 points) is to hit him with two more shots than the number of the level you're playing on. Then it's on to the next asteroid.

Carnival is another of Coleco's licenses and is available for Intellivision as well as ColecoVision. As in the arcade game, this cartridge is a shooting gallery. Three rows of objects—ducks, rabbits, owls, numbers, and letters—move across the top of the screen. Shoot them with your laser cannon, which can only move horizontally along the bottom of the screen. Unlike the random shooting you would do at a real carnival, there's strategy you can use to score high in this game.

First of all, you're equipped with a limited supply of bullets that can only be increased by hitting a special target



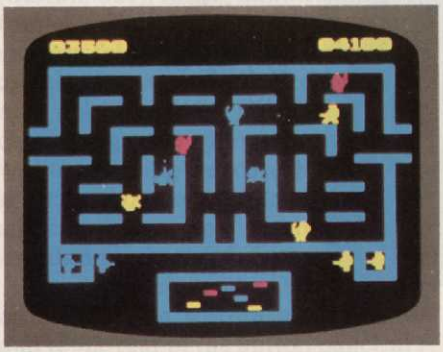
Carnival is more than just a great kid's game. If you're doubtful, try level four.

or by hitting the numbers in the target rows. Try to hit numbers as soon as they appear in order to build up your bullet stash. You'll need them. When you see a duck in the bottom row, shoot it before it begins to float toward your supply, which the duck can reduce if it makes it to the ground. And, by the way, if you hate the soundtrack as much as I do, simply waste one shot at the musical note and silence the game.

Concentrate on numbers, ducks, rabbits and owls—in that order. When you get a chance, shoot out the pipes on the pinwheel at the top of the screen. But don't shoot any of the letters you see in the target rows—not yet. The letters spell the word "BONUS," which, if spelled in correct order, will give you big points. When you have eliminated enough targets to give you clear shots at the letters, start with the B and work your way to the S. Carnival is more than just a great kid's game. If you don't believe me then try level four.

Finally, we come to **Wizard of Wor** and **Gorf,** two VCS-compatible coin-op conversions from CBS Video Games, a new entrant to the software field. Unfortunately, both games are not very good.

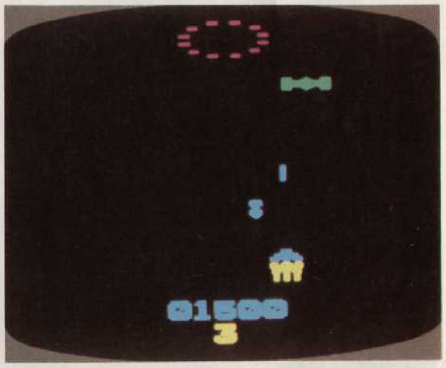
Wizard of Wor is definitely the better of the two, largely because it offers an option for cooperative play between two players who simultaneously roam



CBS' Wizard of Wor is for the less discriminating gamer.

the same maze in search of monsters. Initially, five or six burwors appear in a maze. Some shoot back, some don't. It's best to approach them from behind, which seems to catch them off guard. As you wipe them out, garwors and thorwors appear . . . and then disappear. (Use the radar screen to track their movements.) When you do away with these guys, a winged worluck appears. It will try to escape in one of the two exit tunnels, but if you can shoot it first your point values in the next maze are doubled—a significant bonus. Depending on how he feels about your performance, the Wizard himself may or may not appear in a maze. If he does, you're in trouble. The Wizard is lightning fast, fires like crazy, and shows up randomly at various locations.

Audibly, this game is exciting, but it offers uninspired visuals. If you thought Atari's "Flickerman" (Pac-Man) was distracting to the eye, these monsters will drive you crazy. Anyway, once you've played The Incredible Wizard, a wonderfully graphic game on Astrocade, Wizard of Wor (at least on the VCS) just doesn't quite make it. Even so, it provides plenty of action for less discriminating players.



CBS' Gorf is for the least discriminating gamer.

I cannot and will not be so sympathetic about **Gorf,** however—this cartridge truly is a dog. Gorf is four shoot-'em-up space games in one: Astro Battles, Laser Attack, Space Warp, and Flag Ship. If you're familiar with Space Invaders, Astro Battles will be a snap. Laser Attack is just a simple version of Galaxian. Space Warp is boring. Alien ships, one at a time, circle above you, and you try to intercept their paths with your laser cannon. But Flag Ship, the last battle before you return to game one, is by far the dullest. Overall, the Gorf challenge is pretty weak. So are the game graphics. I think CBS can, and better, do a lot more with future games. Arf! ▲

Interview

(Continued from page 24)

at home, and my son is the one who plays it the most. But I have more problems with him and comic books than I do with video games.

Dr. Zimbardo: I'm not a game player—I've played them, but not much. However, my son is an addict—he's 20, and goes to Stanford. He's done surveys and some interviews with other self-confessed video game addicts—college-aged people who play every day—for my studies. I also have two daughters, but they're too young to play.

VG: Finally, what do you foresee as the future of video games in our society?

Dr. Brothers: I don't think they will affect our society in the future at all. Last year, the rage was Rubik's Cube; this year, it's video games; next year, it will be something else. I suppose the next generation of video games will require more imagination, because now they're rather one dimensional—once the eye-hand coordination is mastered, there's little else there.

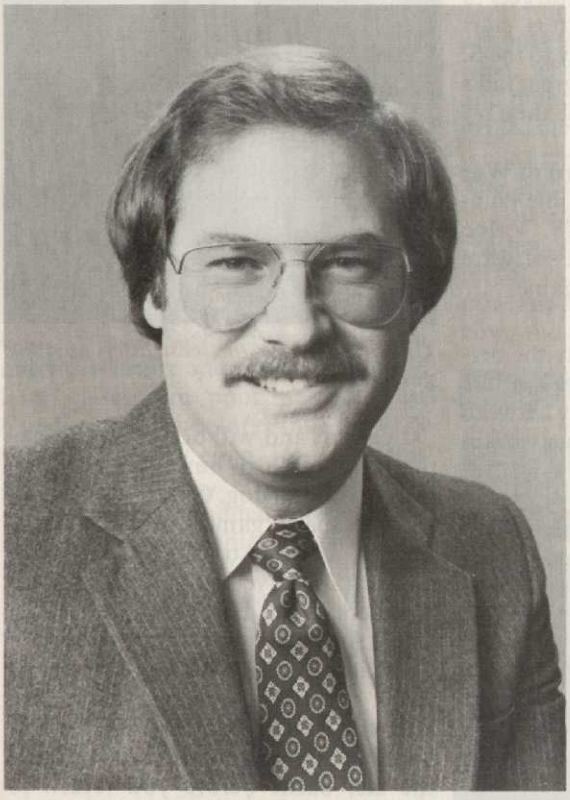
Mrs. Lamm: Video games are going to continue to be part of our future, I'm sure. As with anything new, these games have bombarded us; they've changed the complexion of our communities. I'm hoping that with video games becoming a more accustomed thing, there will be more controls set by parents. Just as they control, or at least monitor, the hours a child watches television and the selection of programs, they should monitor the hours a child plays the games and the selection of the actual game.

Mr. Osborne: I think video games will continue to advance as an electronic form of recreation and entertainment. The special quality that video games have—the interactive quality—will continue to be developed, and it's my feeling that we'll see video games and other forms of entertainment or recreation blend together to produce even newer forms. We like to think we have an entertainment form that can relate to any age level and both sexes; potentially, whole families might go to arcades together and play games in which they act out an entire story, with everybody having a different role.

Mr. Robin: Alvin Toffler was right—we're going through a future shock. There's a new technology out there, and we're just learning to develop consistent and non-threatening behavior in response to it. We've yet to institutionalize our response to this technology, and in many cases we're thrashing about, sometimes in agonized fashion, looking for rules to apply. Until we get enough people who can behave in a comfortable way with video and computer technology, this old-time morality response to video games will continue.

Dr. Zimbardo: Currently, video games reinforce learning how to be optimally destructive. From my professional experience, I think that might have long-term negative impact on society. Video games put the player in command of usually enormous resources, typically to destroy some enemy. The question is: How much do you want to promote that kind of fantasy, especially among young males who have very little control over anything in their lives? We don't know if the fantasy stops there, or has long-range effects. The long-range impact might be to have a generation of males who are reinforced to have this kind of cognitive structure, which could be dangerous 10 to 20 years from now. It's a military mentality, which we already have enough of now.

In a positive vein, it *is* possible to reprogram the games. They could be exciting, challenging and visually appealing as well as teach the player to learn messages that are important to make that person a responsible citizen. Use the games to teach interdependence with other humans, where part of the mechanism teaches cooperation, sharing and negotiating, and where the outcome of the game is not so much destruction as salvation. In either case, this phenomenon—using new technology for immediate electronic feedback—is going to play an important role in our lives for years to come. ▲



DON OSBORNE

"Being able to have some sort of diversion from the oppression of reality is very necessary—video games provide that in a very special way."

HARD SELL

Channel F: The System Nobody Knows

By Roger Dionne

Back in 1976, Fairchild Camera and Instrument produced the first TV-game system that would accept a never-ending supply of new cartridges—a development without which the present state of TV video games could not exist. Called "Channel F," it lifted the game industry out of the dark ages of "dedicated" obsolescence to the new frontier of "programmable" awareness.

Channel F was followed in rapid succession by Bally's Professional Arcade, RCA's Studio II, Atari's Video Computer System, Magnavox's Odyssey² and Coleco's Telstar Arcade. Atari, of course, stole the programmable show as Bally sold out, RCA bowed out and Magnavox and Coleco knocked about. In 1980, Zircon International of Campbell, Calif., purchased the rights to Channel F, dropped the price from $170 to $59.95, and began manufacturing new cartridges for it. Recently, however, the company announced that it would finally abandon production of the system. Several thousand remain in the warehouse, for sale only upon request.

It may seem a bit odd to be reviewing Channel F now when it's down-for-the-count, but as one misty-eyed gamer confided to me recently: "Better late than never." And so here goes.

Photo by R.P. Selcik

GET 'EM WHILE THEY'RE NOT HOT: Zircon wants you to take the last 2,000 Channel Fs off its hands. For $59.95 only.

Hardware

The compact master component has four buttons—marked one through four—in addition to a power switch and a reset button. To the right of the button panel is a slot into which you slide the "videocarts." Two games, tennis and hockey, are built into the system, and one cart, featuring four games (Tic-Tac-Toe, Shooting Gallery, Doodle and Quadradoodle), is packed inside the box.

The buttons are given unique functions, such as time limits—from two (button one) to 20 minutes (button four)—and speed control (one is the slowest, four the fastest). Button three can also freeze a game in progress. Not only does it serve as a pause, but you can change the game specifications without altering the score. Button four is used, among other things, to extend a hockey game into overtime. Pushing it adds one minute of play to the game.

The hand controllers, which tuck away neatly in a storage well above and to the rear of the button panel, are plastic sitcks with trigger-type fire buttons and triangular knobs on top. The knobs move like joysticks, twist to produce responses in certain games, and become an additional fire button when depressed. Though it *feels* fine, some players may find the combination of several functions into a single knob a little awkward. (Incidentally, the Channel F controller has been modified by Zircon and is being sold separately. For a review, see "Rating the Joysticks" on page 58.—Ed.)

Graphically and aurally, the Channel F videocarts are somewhat primitive by today's standards. Indeed, the Space War game may be the most antiquated game of its kind still on the market. That aside, I have to say that Fairchild's designers nevertheless

managed to create some fascinating games, even by today's standards.

Software

The 25 videocarts available for Channel F score an average interest rating (on a scale of one to ten), according to my figures, of slightly over three—not too good. On the whole, its space, sports and arcade-type games are poorly executed while the gambling and learning carts are above average; in fact, **Casino Royale** (formerly Casino Poker) is the best card game, from blackjack to bridge, made for *any* TV-game system. The game is five-card draw, and it has all the elements of real poker. The screen displays three hands of five cards. In the one-player version (the better of the two), two of them remain face down throughout, while the third is turned up when it's the human player's turn to act.

In one long session I had with these sharks, one of them checked aces up after both opponents drew three cards. I bet with kings up, whereupon the computer player raised. I called and, of course, lost the pot. In another hand, after I folded a small pair, the two computer players re-raised each other perhaps half a dozen times. I was actually getting excited, wondering who had the best hand. When one of them finally called, it turned out they both had a pair of aces, and the player with the king kicker won the pot. Later, they went after each other again, pushing in several raises until finally the computer player, who had drawn only one card, folded. He obviously hadn't caught his straight or flush, and I never did find out what the winning player was holding. Interest rating: 8.

Another cart to claim an "eight" is **Dodge-It,** a simple but great game. You are a blue square confined within thick red walls. A ball suddenly enters and begins caroming off the walls. It's only a pong ball, but it's terrifying. You move to the left, the right, up, down, dancing to avoid it, but the ball keeps coming after you from every angle. When it finally hits you, a hundred alarms clang inside your head as concentric, colored rectangles ripple out from the center of the screen until they consume your cell, turning it blood red.

Once you've figured out how to avoid the ball long enough, a second rips through the walls, and then a third. As many as nine balls can be bouncing around at once if you can handle it. When the counter, which tracks your survival, reaches 1,000, all nine balls regroup in the center and explode as you sit trembling in the corner. It's nightmarish and marvelous. Plus, there are more than 200 combinations of cell sizes and ball speeds randomly programmed into the game.

The last of the "eight" games is **Robot War,** another simple yet challenging cart. The materials of Robot War are minimal—tiny geometric shapes situated on an empty green playfield. A square atop two rectangles is your man; four red, upside-down Ys are the robots, who are, of course, out to get your man. There are also electric force fields, represented as blue squares—the idea is to trick the robots into running into them, which takes some practice. It's essentially Berzerk without guns.

On the other hand, **Whizball,** a thoroughly original game, is hockey *with* guns. Instead of paddles in front of each player's goal, there are small, colored squares capable of firing missiles. The missiles carom like pong balls off the sides of the rink, and have the additional capability of destroying your opponent's square when hit, which puts it out of commission for about ten seconds. This is the equivalent of a power play in hockey. Meanwhile, the other object is to keep the lumbering red rectangles (as many as four) away from your goal area. You can only repel them with fire which is kind of fun. The first player to score 11 goals wins.

Though it doesn't have growling engine sounds and is duller visually, **Drag Strip** requires very much the same deftness and touch as does Activision's Dragster. The challenge of the game is similar: You must not accelerate so fast that you blow your engine; you must shift quickly through four gears; and you must cross the finish line in the shortest elapsed time, which the computer only displays at the end of the race. There is a honking, rattling sound during the countdown and, when the race begins, an eerie silence as though it were a dream. You shift with your controller and increase RPMs by twisting the knob. The cars race across the screen eight times (exiting left, entering right) before the competition concludes.

A few of Channel F's educational carts are worth mentioning. Its **Hangman** has more variety than other video hangman games and a better visual display than most. Perhaps to compensate for its limited 160-word vocabulary, Hangman features a mode that allows you to program in about 30 words up to ten letters long. And the **Nim** game is infinitely more complex than Atari's.

The **Pro Football** cart is better than the Baseball, but not by much. The teams are comprised of six men—four linemen and two backs—and you can choose from eight formations on both offense and defense. Games run 16 minutes (four per quarter) and you are allowed only four downs to move the entire length of the field for a touchdown. A feeble effort is made to reflect the gridiron atmosphere by playing the Notre Dame fight song at the start of the game and "On Wisconsin" after a score.

Those familiar with Atari's Maze Craze will recognize **Maze** immediately. Several options spice the game up, such as varying your speed, making the maze invisible or cluttering it up with barriers. The most interesting option, similar to the "robbers" in Maze Craze, is the introduction of a third square, controlled by the computer, which goes for you before you reach the exit. The most masochistic option is Double Paranoia, a game without end and without possibility of victory, in which there are mice stuck in the maze forever. For video game gluttons only.

Finally, we come to **Alien Invasion,**

Channel F chart

GAME	INTEREST RATING	SKILL RATING
Alien Invasion***	4	4
Backgammon/Acey Deucy*	0	10
Baseball*	2	3
Bowling*	3	3
Casino Royale***	8	5
Dodge-It*	8	10
Desert Fox*	3	3
Drag Strip*	4	8
Galactic Space War**	2	3
Hangman*	5	4
Lunar Landing*	2	7
Math Quiz I*	1	1
Math Quiz II*	1	1
Maze*	4	5
Memory Match*	2	4
Mind Reader*	2	6
Nim*	4	6
Pro Football**	4	2
Robot War/Torpedo Alley*	8	6
Slot Machine**	1	0
Sonar Search*	3	3
Space War*	0	1
Spitfire*	3	5
Whizball*	7	7
Video Blackjack*	3	5

*Key: Ratings are from 1-10. Asterisks indicate price. * is $18.95, ** is $23.95, and *** is $29.95.*

what I understand was the last cart ever designed for Channel F. Would you believe this is a Tinker Toy copy of Space Invaders? No? How about a Pick-up Stix version of Galaxian? Surely I jest. Alien Invasion offers none of the excitement, frenzy or challenge of the great Atari original, yet it's an amusing diversion, in which without too much practice you can rack up a bushel of points—even if your missiles travel too slowly.

The remainder of the Channel F games are rated for interest and skill levels in the accompanying chart.

Conclusion

There are three reasons why one would purchase a Channel F at this late date: for strictly nostalgic purposes; as a collector's item; or to play a convincing hand of video poker. Poker fanatic that I am, I think I'd opt for the latter reason, though the other two ain't bad either. If you're interested, write: Zircon International Inc., 475 Vandell Way, Campbell, Calif. 95008. Or call: (800) 227-1617. From California, call: (800) 772-3545. ▲

Feedback Results #4

Favorite Department: Tie between Hard Sell and Soft Spot; **Favorite Feature:** Zen & the Art of Donkey Kong; **What I'd like to see less of:** Interviews; **What I'd like to see more about:** ColecoVision, strategies, Atari 800, computer games, video gaming in Alaska (most unusual); **Favorite Arcade Games:** Tie between Tron and Donkey Kong; **Favorite Carts:** Pitfall, Earthworld, Donkey Kong (in that order); **Favorite Computer Games:** Star Raiders, Pac-Man, Centipede (in that order).

Only five entries to our first caption contest took a prize and they are: Mark Anthony, Los Angeles: "Stupid date. She's been playing the demo pattern for an hour!" Ian Brown, Brooklyn, N.Y.: "We should try it with a quarter." G.S. Clay, Skokie, Ill.: "But, honey, this is our honeymoon. Wouldn't sex be more exciting?" "Not now, dear—I'm working up a high score." J.C. Charter, Ames, Iowa: "Uh, honey, it's only the demo." Mike Raley, Jr., Gray, Ga.: "Don't do that!" We still have some more yo-yo's to give away. Anybody care to try? ▲

BULL'$-EYE

Imagic's Offering Couldn't Be Refused

When you consider that Imagic is not yet even two years old, the anticipation that greeted its December stock offering was nothing short of amazing. Also amazing were some of the numbers that appeared in the company's preliminary prospectus (dated November 3):

- As of September, Imagic had shipped "in excess" of 2.5 million cartridges.
- From April to September, the company's sales were nearly $35 million, compared with $3.9 million for the previous 10 months.
- In the same two periods, Imagic's net income rocketed from $477,000 to $6.1 million.

Not included in the prospectus was President Bill Grubb's estimate that Imagic cartridge sales may exceed $75 million in fiscal year 1983 and that by 1985 the company could be worth $500 million.

Two other factors grabbed the attention of investors. One was what might be called the "pure play" factor. Before Imagic's offering, the only way to invest in video games was to purchase shares in a parent company, such as Warner Communications (Atari), General Mills (Parker Brothers), Coleco or Mattel. What happens if other areas of these far-flung companies are not making money like the video game properties? Price/earnings multiples suffer, of course. This can't happen with Imagic.

The software company also has another advantage: It produces no hardware of its own. Imagic can only be hurt by the quality of its games, not by having backed a losing hardware system (Astrocade's fate). Clearly, investors prefer the fewer risks involved in the software business.

However, due to the sudden market decline in mid-December, Imagic postponed its offering until early in '83. According to a spokesperson, Warner Communications' earnings drop and subsequent stock slide "caused unsettled feelings" at Imagic. "It's not in our best interest to go out now," the spokesperson said.

Why was Imagic planning to go public at all? Simple. The video game business is crowded with conglomerates that have immense amounts of financial muscle. For a smaller company, one sure way to fight future battles is to increase your net worth and capital base. Going public would immediately accomplish this. Imagic's offering also would enable the company to attract additional talent while keeping key personnel happily at work. Indeed, based on the stock's original offering price ($15 to $17), at least nine employees are slated to become instant millionaires. Bill Grubb alone would walk away with approximately $34 million. *—David Leibowitz, V.P., American Securities Corp.*

Photo by Jay York

Imagic's president Bill Grubb predicts his company will sell more than $75 million worth of cartridges in fiscal '83. But will he ever become the $34 million man the offering would make him?

SCORE!

Thar's Gold In Them Thar Games

The place: Bermuda. The date: Nov. 14, 1982. The event: Imagic's Defend Atlantis video game contest.

It was high noon at the Southampton Princess Hotel when the four "survivors" of Imagic's nationwide Defend Atlantis competition met in the King Charles Room for a shoot-off that would leave one of them $10,000 richer.

Andrew Levine, 15, of Needham, Mass., Alan Garay, 17, of Flemington, N.J., Jerry Goulette, 37, of Davenport, Iowa and Thomas De Noia, 18, of New York City, had joined thousands of others in sending in photographs of television screens displaying their highest Atlantis scores. Imagic tabulated the results and flew the four highest scorers to Bermuda for the hour-long battle.

When it was over Levine held the title of champion and walked away with the Lost Treasure of Atlantis prize—$10,000 in gold. His high score: 1,968,800. Dennis Koble, the Atlantis game designer, described Levine like this: "He's an exceptionally quick analyst of the game program and devised a strategy to achieve the maximum points per minute that the game program would allow. Then, he simply worked out a play technique to optimize the strategy." Levine had owned the game only four-and-a-half weeks and the game console just five months at the time of the event.

Garay placed second with 1,369,200; Goulette, third, with 1,123,900; and De Noia, fourth, with 1,034,500. The runners-up each received $1,000. In all, Imagic gave away $40,000 in prizes, including snorkling gear for 1,254 top-scorers.

* * *

SOLID GOLD: Another video gamer whose playing efforts paid off is 10-year-old Tony Scardigno, of Weehawken, N.J., who took home a pound of gold (worth $6,000) in Magnavox's Pick Axe Pete Pick-Off contest. The event, held on Oct. 8 at the 1982 World's Fair in Knoxville, Tenn., brought five contestants together for three 15-minute rounds. Their two highest scores were averaged for the final results.

Scardigno came through with 938 points, just squeaking ahead of second-place winner George Floid, 15, Rogersville, Tenn., who accumulated 925 points. The other winners were: Bryan Schumacher, 14, Trenton, Oh., 757 points; Michael McKim, 12, Alexander, Ark., 589 points; and Jody Schumacher, 11, whose brother placed third, 374 points.

* * *

PAC-ING IT IN: The two contestants of the Alamo KOA Kampgrounds' Pac-Man contest, held in San Antonio, Tex., on Oct. 21, took home a 25-pound bale of popcorn laced with peanuts and Cracker Jacks and a dozen bananas. Since the participants were circus-trained elephants, they were probably quite pleased with the prizes, though neither would talk to the press.

In the first pachyderm-only video game contest, celebrating the opening of the Galaxy 1 Fun World Center at the grounds, Dumbo and Jumbo manipulated the game controls with their trunks and, according to Al Rohde, President and Chief Executive Officer, "You've never seen such ducking, dodging, eating, and scoring in your life." In the end, Dumbo lumbered off the first-place winner.

* * *

NOT FOR ELEPHANTS ONLY: Last summer, from June 14 to Aug. 29, Six Flags sponsored a national Ms. Pac-Man Tournament in its six amusement parks across the country. The regional winners were flown to Hollywood where the finals were played before a live audience on ABC-TV's *That's Incredible!* program. Tim Collum, a 20-year-old student of geology at Steven Austin University and a resident of Boyd, Tx., racked up 123,860 points, laying claim to the title and $5,000 in prize money. —*Sue Adamo*

Double Speak

(Continued from page 10)

fringement of its copyright. Coleco, of course, believes otherwise. Stay tuned.—Ed.

Jus' Wonderin'

Does Coleco have home rights to Pac-Man? They did make the tabletop version, so I'm wondering if they can make a Pac-Man cartridge for ColecoVision like they did with Donkey Kong.

Mark Grossi
La Grange, Ill.

Nope. But Coleco does offer two good maze games, Lady Bug and Mouse Trap.—Ed.

Addresses Unknown

Some of our designers thoroughly enjoyed your recent article "Programming for Dollars" (December issue). Unfortunately, it did not mention how Joel Billings of Strategic Simulations or Doug Carlston of Broderbund can be contacted. Could you please forward these business addresses?

Michael O'Hasson
Simulation Design Labs
Oklahoma City, Okla.

For Strategic Simulations: 465 Fairchild Dr., Suite 108, Mountain View, Ca. 94043; for Broderbund: 1928 Fourth St., San Rafael, Ca. 94901.—Ed.

Rating Book Beat

I had a book published by Scholastic Books in October titled *How to Win at Video Games.* It's a big hit. It went back to press in November and I'm sure it will again after the first of the year. Only Scholastic's book on E.T. is doing better this fall. That's why I was surprised to read the way your magazine panned the book (Book Beat, Jan. issue). I think the problem was that your reviewer had no idea what my audience was—kids who are 10 to 14 years old and live in a suburban context. About the only time they get to play a coin-op game is when one of their parents drives them to a mall. If I had done the book your reviewer seemed to have wanted me to do, I'd still be working on the revisions. I mention this because I have two other books about video games under contract, and they're both juveniles. If they're reviewed by *VIDEO GAMES,* I hope your reviewer will take that fact into consideration.

George Sullivan
New York, N.Y.

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The Zydroid Legion

Chapter 3: THE LEGION ASSEMBLES

Synopsis:

In a parking lot, outside an arcade, a mysterious abduction ...

Knifing through space, in a craft crewed by bugs, an unusual gathering ...

Words/Lou Stathis
Visuals/Matt Howarth

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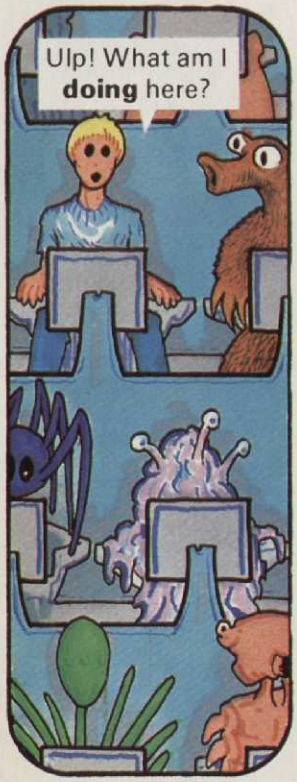

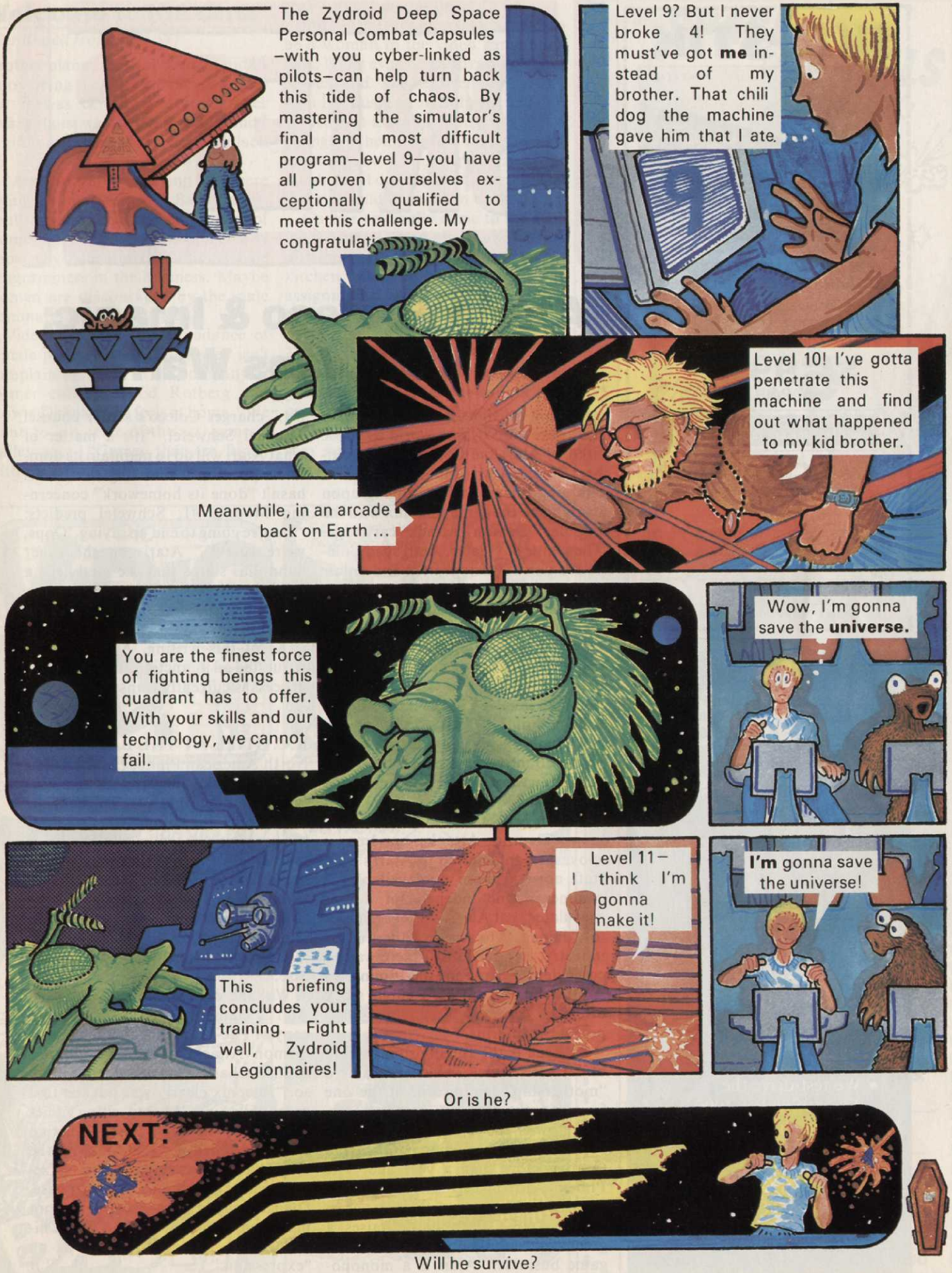
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- A visit to EPCOT
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- Dr. Video takes a look at radiation
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- We test-drive the Timex-Sinclair 1000
- and much, much more!

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BRIEFS

Atari v. Coleco & Imagic; This Means War!

Seldom do shots resound as loudly in the video game world as those fired by Atari and Coleco last December. First, Atari announced it was charging Imagic with infringing upon its rights to the game Phoenix with the popular Demon Attack cartridge. Then, nine days later, Atari sued Coleco for patent infringement and unfair competition regarding the much-publicized hardware adaptor (Module #1), which allows ColecoVision owners to play VCS-compatible software. Coleco responded that same day with an anti-trust suit against Atari. The total numbers involved in the latter suits is $850 million.

Though Imagic has, at presstime, yet to countersue, it called the Atari allegation "completely without merit." When asked to explain why Atari waited nearly nine months to challenge Demon Attack, an Imagic spokesperson deferred to Atari's legal staff, none of whom were available for comment. One independent lawyer speculated that Atari had been waiting for "damages" to accrue. Others in the industry, however, insist there was no coincidence between the timing of Atari's suit and Imagic's public stock offering. Imagic subsequently postponed the offering.

At issue is the Intellivision version of Demon Attack, which contains a "mothership" reminiscent of the one found in the Phoenix arcade game. Atari owns the TV-game rights for Phoenix, which it purchased from Centuri more than a year ago. The Phoenix cartridge is scheduled to be released in May.

The Atari-Coleco battle raises a greater question: control of the video game business. "Atari is a monopolist," charges Coleco's senior counsel Michael Schwefel. "It's a matter of what Atari will do to maintain its dominant position." Claiming that Atari hasn't "done its homework" concerning Module #1, Schwefel predicts: "They're going to end up saying, 'Oops, we're sorry!' " Atari, on the other hand, has stated that the module is a VCS in disguise. Two patents, for sound and motion, are being violated, the company says.

As of this writing, Atari had not requested an injunction. The discovery process is currently transpiring.

* * *

K.C. STILL AT THE BAT: Though North American Philips (NAP) lost in its bid to take the K.C. Munchkin-Pac-Man copyright case to the Supreme Court, the company is nevertheless preparing its arguments in favor of the game for a trial that may not be heard for another two years. The 7th Circuit Court in Chicago, the same court that last year ordered the preliminary injunction which banned the sale of K.C. Munchkin, will hear the case.

Will the decision which supported Atari's claim that Munchkin was a copy of Pac-Man affect the upcoming Demon Attack proceedings? NAP's counsel Charles Quarton doesn't think so. "Phoenix clearly was not the first game of its kind," he says, citing games like Space Invaders and Galaxian which preceded it. "Pac-Man, on the other hand, was truly the first maze-chase game of its kind." In either case, Quarton says that "concepts are not protected, expressions are." The Chicago court treated Pac-Man as an "expression." —*S.B.*

Welcome to the Club

(Continued from page 54)

another planet. I'm not saying I didn't enjoy being the only woman at times, but it was certainly bizarre. After awhile, I just wasn't comfortable, and I think it reflected in my work, or lack of.

"Atari was always saying they were trying to hire women," Bailey adds, "but they said that the percentage of women applying was low. I don't really know why there aren't any more female programmers in the business. Maybe women are discouraged by the male domination in this business."

Videa also lacks an abundance of female programmers, but Bailey isn't complaining. Back in the company of former colleagues Ed Rotberg and Howie Delman, she feels at home. "We want to do state-of-the-art games," Bailey says. "Games that are funny without being sickeningly cute. Just really good entertainment."

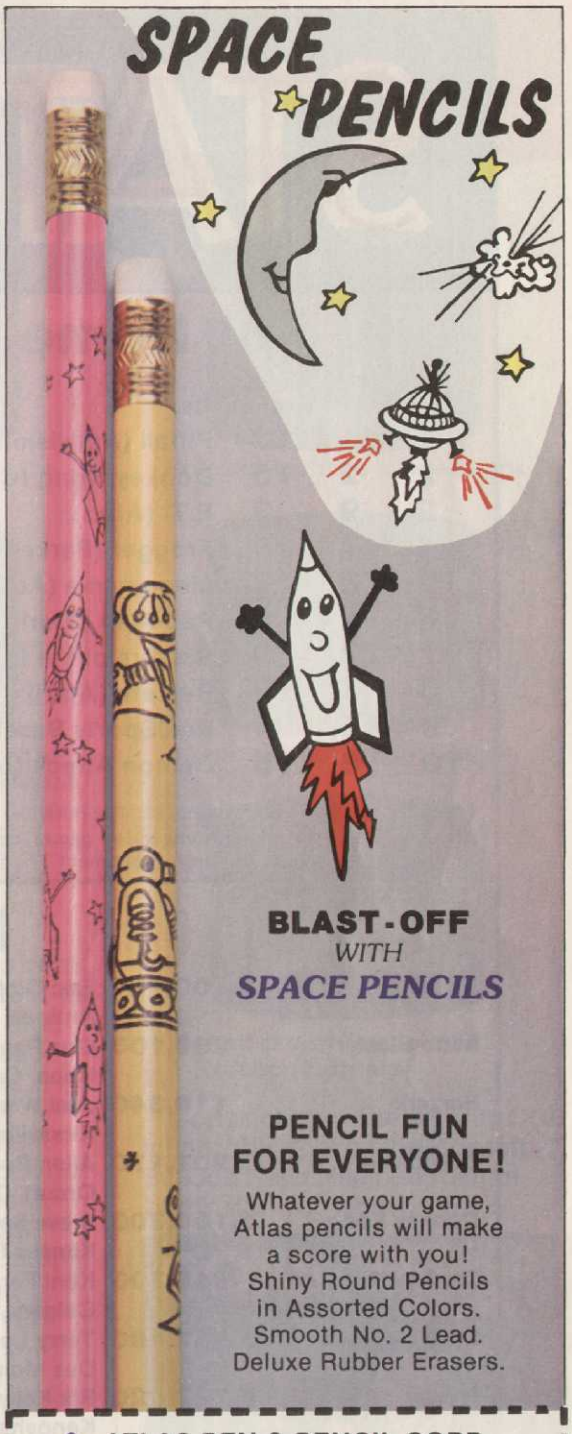
But not everyone agrees it's tough to be a woman in the video game business. It can even be an advantage, says 32-year-old Sue Currier, co-partner with her husband in Softsync Inc.

"It's not a sexual thing. It's just a change. When I started I didn't know anything about the business. Everyone taught me. I don't know if I were a man if they would have taken to that."

Currier originally came to the U.S. from Australia as a model and started distributing computer games from her kitchen table in between modeling assignments. In just over a year-and-a-half, the little enterprise grew into one of the main software suppliers for the Timex Sinclair 1000.

Currier believes many female programmers are hesitant to submit programs. This is a shame, she says.

"I maintain women can do anything they want. Sometimes we're our own worst enemies." ▲



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STATS

At Home

Dec.18	Dec.4	Weeks on Chart	Title
1	1	13	Pitfall (Activision)
2	2	15	Donkey Kong (Coleco)
3	9	3	E.T. (Atari)
4	3	15	Frogger (Parker Brothers)
5	5	9	Megamania (Activision)
6	6	15	Pac-Man (Atari)
7	12	3	Raiders of the Lost Ark (Atari)
8	4	15	Berzerk (Atari)
9	15	4	RealSports Baseball (Atari)
10	8	15	Demon Attack (Imagic)

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These are the best-selling home video games compiled from outlets by the Billboard research department.

The Top 10 Video Games

In the Arcades: January 15, 1983	Number of Plays
*1. Joust (Williams)	1024
*2. Satan's Hollow (Bally/Midway)	960
*3. Jungle Hunt (Taito)	940
*4. Moon Patrol (Williams)	868
5. Galaga (Bally/Midway)	808
6. Donkey Kong Jr. (Nintendo)	784
7. Ms. Pac-Man (Bally/Midway)	740
*8. Tutankham (Stern)	696
9. Robotron (Williams)	684
10. Turbo (Sega)	680

Honorable Mention
Q*Bert (Gottlieb), Slither (GDI), Sub-Roc 3-D (Sega), Tac/Scan (Sega), Pengo (Sega), Burger Time (Data East & Bally/Midway), Blueprint (Bally/Midway).

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These are the top earning arcade games according to a poll of operators. Those with asterisks indicate operator responses were between 25-50 percent. The number of plays is a national average per machine per week.

High Scorers

Alpine Ski	500,774	Eric Olofson, Antioch, Calif.
Astro Blaster	299,100	Gus Pappas, Napa, Calif.
Berzerk	119,340	Joel West, Kirksville, Mo.
Bosconian	907,170	Allen Burdick, Orcutt, Calif.
Donkey Kong	3,165,300	Steve Sanders, Kansas City, Mo.
Donkey Kong Jr.	948,700	Kent Farries, Calgary, Alberta
Eyes	7,947,490	Terry Logsden, Des Moines, Iowa
Frenzy	4,737,820	Rik Kelly, Kenosha, Wisc.
Galaga	10,916,000	Eric Bolduc, Pomona, Calif.
Gorf	653,990	Todd Rogers, Burbank, Calif.
Gravitar	4,722,200	Raymond Mueller, Boulder, Colo.
Jack the Giant Killer	9,401,050	Mike Klaege, Lenox, Ill.
Kangaroo	754,400	Sam Middleton, Panama City, Fla.
Ladybug	280,420	Antonio Medina, Napa, Calif.
Looping	1,218,460	Eddie Leech, Lenox, Ill.
Millipede	582,629	Leo Daniels, Chicago, Ill.
Moon Patrol	577,480	Eric Ginner, Mountain View, Calif.
Ms. Pac-Man	286,410	Mike Lepkosky, Houston, Tex.
Pengo	263,860	Mark Robichek, Mountain View, Calif.
Robotron	169,595,225	Leo Daniels, Wrightsville Beach, N.C.
Satan's Hollow	908,885	Darren Olson, Calgary, Alberta
Scramble	999,250	John Norman, Wrightsville Beach, N.C.
Star Castle	7,842,950	Ron McCoy, Lakewood, Calif.
Stargate	70,283,000	Oscar Iglesias,* Concord, Calif.
Super Cobra	198,470	Matt Brass, Helena, Mont.
Thief	3,509,160	Lloyd Smith, New Hope, Minn.
Tunnel Hunt	732,910	Mark Robichek, Mountain View, Calif.
Tutankham	244,920	Mark Robichek, Mountain View, Calif.
Warlord	583,750	Allen Toney, Huntington, W. Va.
Zaxxon	2,138,650	Eric Burch, N. Palm Beach, Fla.

*Iglesias now holds the world's record for most hours on one game—63 hours, 10 minutes.

Our thanks to Walter Day, Jr. of Twin Galaxies for providing us with these latest scores.

Are you up to the challenge of Wizard of Wor™ and Gorf?™

So you're hot stuff at video games? Joysticks melt in your hand? Don't let it go to your head. Try mastering Wizard of Wor and Gorf, the two Bally/Midway arcade hits you can now play at home. They're new from CBS Video Games.

Both are made for the Atari® Video Computer System™ and Sears® Video Arcade.™

WIZARD OF WOR

Dare you enter the Wizard's diabolic dungeon where doom lurks at every turn? Can you keep your composure as the Wizard's henchmen try eating you... ALIVE? Fight back. Use your radar screen.

Vaporize the Burwors. Chase the Worluk.

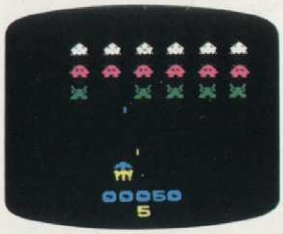
Until the Ultimate: The sometime-visible/sometime-invisible Wizard. Trust no one.

Wizard is designed so two may play at the same time. And since all's fair in Wor, even your best friend can zap you.

Now we don't want you to freak out totally, but if you're still up to the challenge, top the all-time, high score: 99,500 by Frank Merollo (10/82) and Buz Pryzby (8/82).

GORF

Can you hold up under the challenge of four different boards in one game? At nine different levels? Try and beat the high score of 32,700 by Horace Eckerstrom (9/82). No sweat? Well, what if we told you each level was faster than the last? Next time you'll think before you speak. But now you must face:



Gorfian bombs.

Kamikaze crazies & Laser Ships.

Deadly Subquark Torpedoes.

And finally: The dreaded Neutron Flagship.

Gorf's not easy. There's only ONE vulnerable spot on the Flagship. But don't let a little neutronium bomb stop you from hitting it.

Now that you know what to expect, are you still up to the challenge of Wizard and Gorf?

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CBS Video Games

Are you up to the challenge?

NEW FROM ATARI® COIN VIDEO GAMES

IF CENTIPEDE™ DROVE YOU "BUGGY," NEW ATARI® MILLIPEDE™ IS SURE TO RAID YOUR BRAIN.

They're back! The creepy crawlers of Centipede have given way to the ultimate generation of "nasties" in MILLIPEDE, the all new coin video adventure fantasy from ATARI®.

You're deep in a mystical forest outside of time . . . you've got to defend yourself from hordes of larger-than-life insects. The bugs keep coming . . . all kinds.

The challenge continues. The intensity increases. Armed only with bow and arrows, you—as the "Archer"—must fire through a field of colossal mushrooms to hit the giant Millipede who steadily advances toward you. Single heads shoot out from the sides! Spiders, earwigs and beetles appear to wreak their own special havoc! Suddenly the screen is filled with waves of bombing bees, dragonflies and mosquitos! Your only chance is to explode one of your DDT bombs!

Are you ready to battle the bugs? Remember you risk the sting of defeat . . . but to escape the challenge is unthinkable. Arm yourself. **Ask for Millipede where you play coin video games.**

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